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ABSTRACT

These booklets, parts I and II of a three-part series, describe in detail issues related to the future development of an innovative outdoor public playground especially designed for integrated play between handicapped and able-bodied children. The first booklet describes potential user groups--the types of children who are expected to use the playground, activities that are suggested for each user group, and special features needed in the playground. (The groups expected to use the playground include able-bodied children, children with neuromuscular and orthopedic disabilities, children with mental retardation and brain injuries, children with visual and hearing impairments, children with arthritis, and children with chronic conditions such as heart disease, diabetes, epilepsy, and hemophilia.) The comprehensive research studies that underlie the project, including site analysis and criteria, are also described. The second booklet deals with the design competition program, devised by the city of New York to encourage the widest variety of approaches and solutions to the unique problem this kind of playground presents. The program specifies the various safety requirements, special recreation needs, duration and maintenance of the playground, rules of the competition, and evaluation criteria to be used in judging the entries. In addition, an appendix indicates wheelchair dimensions for different age groups; specifies clearances and dimensions for ramps, steps, handrails and doorways; and suggests layouts for changing areas, toilet rooms, and several other playground components. (Author/MP)

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# A Playground for All Children

## Book-1
## User Groups and Site Selection

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The research and studies forming the basis for this report were conducted by the City of New York Department of City Planning pursuant to a contract with the U.S. Department of Housing and Urban Development (HUD) Office of Policy Development and Research. The statements and conclusions contained herein are those of the contractor and do not necessarily reflect the views of the U.S. Government in general or HUD in particular. Neither the United States nor HUD makes any warranty, expressed or implied, or assumes responsibility for the accuracy or completeness of the information herein.

A PLAYGROUND FOR ALL CHILDREN

# FOREWORD

The three booklets of A Playground for All Children describe in considerable detail a unique project that we at HUD are most interested in: the development, by the City of New York, of the nation's first outdoor public playground to be especially designed for integrated play between handicapped and able-bodied children.

The first booklet describes the special play needs of the children, ages three to eleven, who are expected to use the playground, along with their abilities and disabilities. It also describes the comprehensive research studies that underlay the project, including site analysis and criteria.

The second booklet deals with the design competition, devised by the City of New York to encourage the widest variety of approaches and solutions to this challenging assignment.

The third booklet -- the resource volume -- documents the playground's development and deals with both process and product. Included in it are the survey of existing playgrounds, which was made in preparation for the competition, the four winning entries, and a description of other innovative concepts, designs, and play components.

We believe that the materials in these booklets will be of interest to recreation specialists, architectural designers, to those involved in special education of handicapped children, and to public officials and administrators all across the country. As the resource booklet concludes, perhaps the playground, when built, "will become a model for similar projects everywhere."

We look forward to learning of your reactions to A Playground for All Children.

Donna E. Shalala
Assistant Secretary for Policy
Development and Research

# A Playground for all Children

## USER GROUPS AND SITE SELECTION

City of New York
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Affairs Administration

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Department of City Planning

January 1976

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# INTRODUCTION

There has been a long felt need for appropriate recreation facilities for the many thousands of New York City children who are disabled. No such facilities are presently available. Recognizing the need, the City has set aside $100,000 from its first federal Community Development Block Grant to design such a playground. It will be the first public playground in the nation specifically designed for the integrated recreational enjoyment of children with disabilities as well as able-bodied youngsters.

The concept for this kind of playground as well as other issues concerning accessibility evolved from discussions with representatives of various organizations concerned with the problems of the disabled. These discussions led to the formal establishment, in September of 1974, of a unit in the Department of City Planning to coordinate work on programs for persons with disabilities.

One of the first efforts of the office was to move part of the hearings on the 1975-76 Draft Capital Budget from City Hall to the Tweed Courthouse which has an elevator. This made it possible for disabled persons in wheelchairs to attend part of the proceedings. However, it was clearly a make-do shift. Funds were subsequently included in the Draft Proposed Community Development Program and Application for Community Development Program Block Grant Funds for an elevator at City Hall. As the Commission noted in its application:

> "This is a start of a long term commitment to the handicapped and disabled. The construction of an elevator and appropriate ramps will enable the handicapped to participate in all activities held at City Hall. The City will therefore be expanding its capacity for citizen participation and thus furthering a substantial mandate of the Housing and Community Development Act.
>
> The importance of this initial project is highlighted by the concern of representatives of various groups serving the handicapped, expressed at recent Capital Budget hearings of the City Planning Commission."

In March 1975 the Board of Estimate changed its hearings on the Community Development application to a location accessible to the handicapped. Several parent organizations, affiliated with institutions serving handicapped children, petitioned New York City to create an integrated playground that could be used for recreation by their children as well as able-bodied children. The Parks, Recreation and Cultural Affairs Administration endorsed the request. The Board of Estimate voted to approve undertaking this project and set aside $100,000 for the initial design work. This effort then also became part of the official application for New York City's Block Grant application under the Housing and Community Development Act of 1974.

There are three objectives to be met in the design of this playground:

1. *Creation of a public playground that may be enjoyed by children in the three to 11 year age group, regardless of disability.*

2. *Provision of an integrated play experience for disabled and able-bodied children.* Many children with disabilities have little opportunity to participate in the larger community and are isolated from all kinds of experiences that are considered normal and desirable parts of development. Even the few recreation facilities available to the disabled child are often totally segregated by type of disability. Similarly, the able-bodied child's perception of his world is generally limited to play with other able-bodied children.

3. *Development of prototypical playground features that may be used in neighborhood playgrounds throughout the city.* It is hoped that this playground will become an example of how the needs of

Illustration No. 1

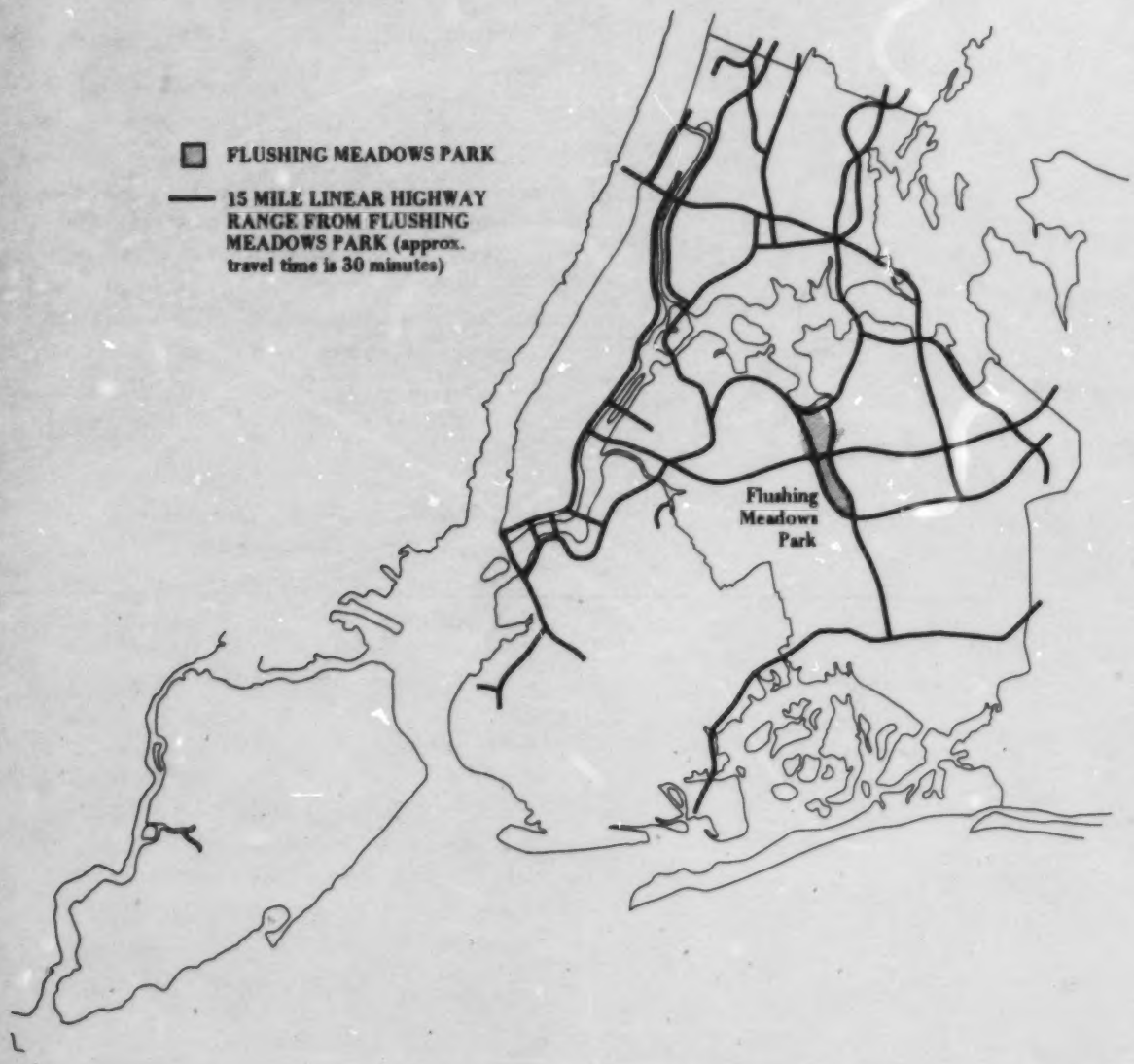
the handicapped can be served in the city recreation facilities. Successful components of this playground will be reproduced in neighborhood playgrounds as they are refurbished or developed.

In order to encourage a variety of approaches and solutions, the City, with funds set aside for beginning design work, will hold a design competition, with the Parks, Recreation and Cultural Affairs Administration and the Department of City Planning acting as joint sponsors.

This report is intended to give playground designers preliminary information about the playground and the children who are expected to use it.

**Background Studies**

In developing the concept of the playground, the City has been working with agencies and individuals experienced in the recreational needs of children with disabilities. Lists of the individuals and agencies consulted may be found in appendices A and B. Among the many private groups consulted were the Manhattan, Queens, and Nassau County United Cerebal Palsy centers, the New York University Medical Center Institute of Rehabilitation Medicine, and the Muscular Dystrophy Association. Among the individuals consulted were physicians, physical therapists, recreation specialists, and parents of children with handicaps.


FLUSHING MEADOWS PARK
15 MILE LINEAR HIGHWAY RANGE FROM FLUSHING MEADOWS PARK (approx. travel time is 30 minutes)
Flushing Meadows Park

**Transportation-Population Study**

Because this playground will be the first, and for some time at least, the only facility of its kind in New York, it is expected to draw children from the entire city. Therefore, it must be conveniently accessible to the largest possible number of children with disabilities.

In order to eliminate land costs and reduce the time required for site selection, the decision was made to locate the playground in an existing regional park in the City. Transportation and population studies were then undertaken to determine which park was most readily accessible to the largest number of disabled children.

A number of agencies serving handicapped youngsters were surveyed to check the validity of three assumptions regarding transportation:

1. Agencies serving handicapped children would use this playground as a program resource.

2. Parents would bring their own youngsters.

3. All groups would travel primarily, if not exclusively, by cars, vans, and buses rather than subways.

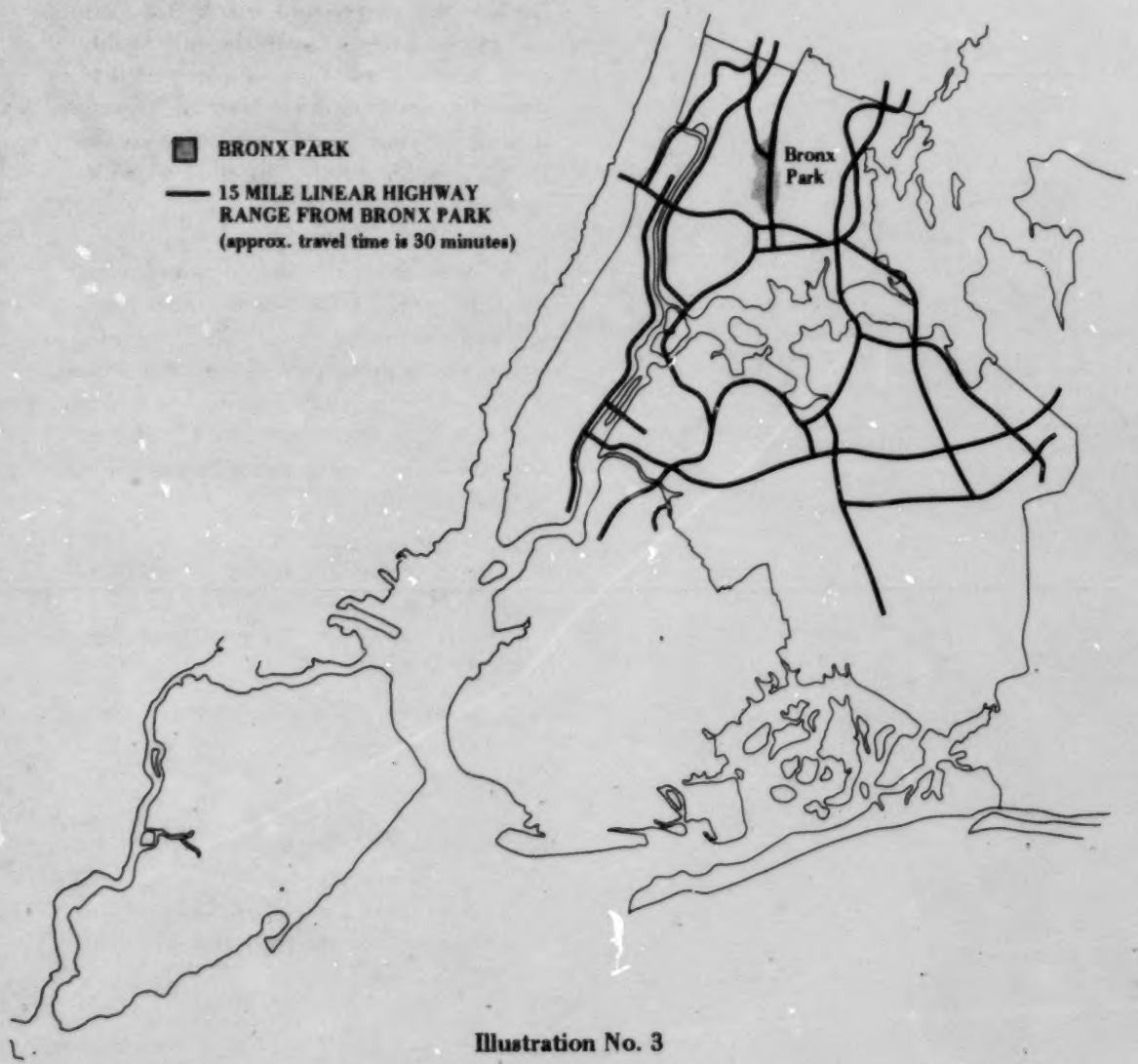



**Illustration No. 3**

In all instances these assumptions were validated.

Transportation specialists, utilizing the primary criterion of vehicular accessibility, identified the most accessible locations or areas within each borough and then determined which of these areas were most accessible to the remainder of the City. Altogether, 35 major vehicular traffic nodes were identified. Five of these nodes were then selected on the basis of accessibility to the regional parks. (Illustration no. 1). The choice of parks was then narrowed to Bronx, Flushing Meadow, and Prospect parks.

The three regional parks were analyzed for comparative highway accessibility. A 15-mile highway range (approximately a 30-minute trip) from each park was projected, and comparative highway accessibility was mapped. (Illustrations nos. 2, 3, 4).

In the absence of a census, handicapped children were assumed to be evenly distributed throughout the population. Gross population within a ten-mile radius of Flushing Meadow Park, Bronx Park, and Prospect Park was computed by borough and by total numbers: (Illustration no. 5)

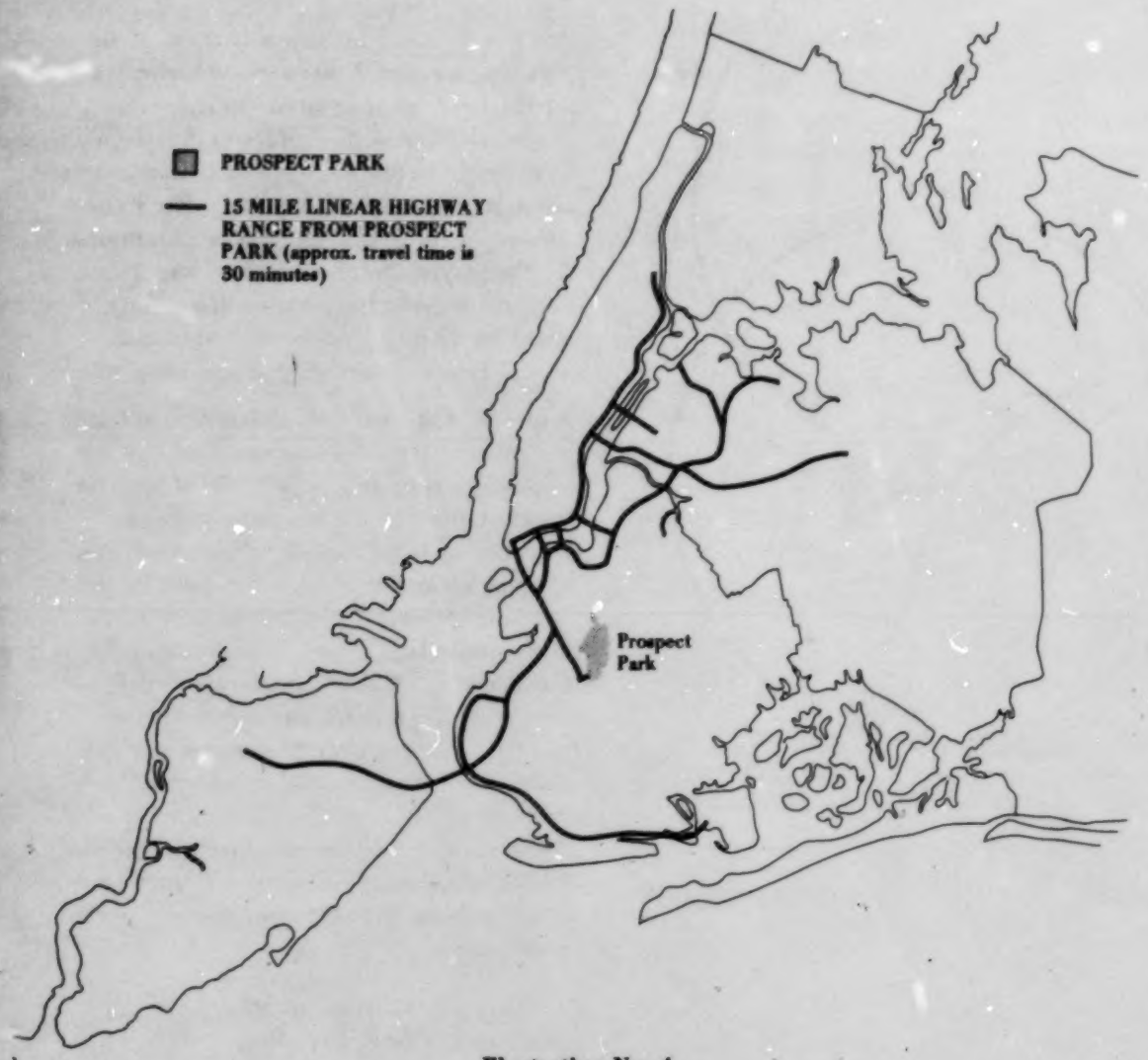



Illustration No. 4

**Gross Population* Within Ten-Mile Radius of:**

| | | |
|---|---|---|
| Flushing Meadow Park: | Manhattan | 814,628 |
| | Bronx | 763,892 |
| | Queens | 1,871,452 |
| | Richmond | -- |
| | Brooklyn | 1,057,370 |
| | Total | 4,507,342 |
| Bronx Park: | Manhattan | 921,833 |
| | Bronx | 1,471,690 |
| | Queens | 522,927 |
| | Richmond | -- |
| | Brooklyn | -- |
| | Total | 2,916,450 |
| Prospect Park | Manhattan | 602,252 |
| | Bronx | -- |
| | Queens | 615,471 |
| | Richmond | 72,070 |
| | Brooklyn | 2,602,012 |
| | Total | 3,891,805 |

*Source: 1970 Census

The locations of public and private agencies, institutions, and schools serving handicapped children were mapped in relation to the regional parks, as were New York City's 28 poverty areas. Eight of the poverty areas were within the ten-mile radius of Bronx Park, 13 were within the ten-mile radius of Prospect Park, and 14 were within the ten-mile radius of Flushing Meadow Park (Illustration no. 5).

Site selection analysis of 12 specific locations within these three parks is detailed on page 26.

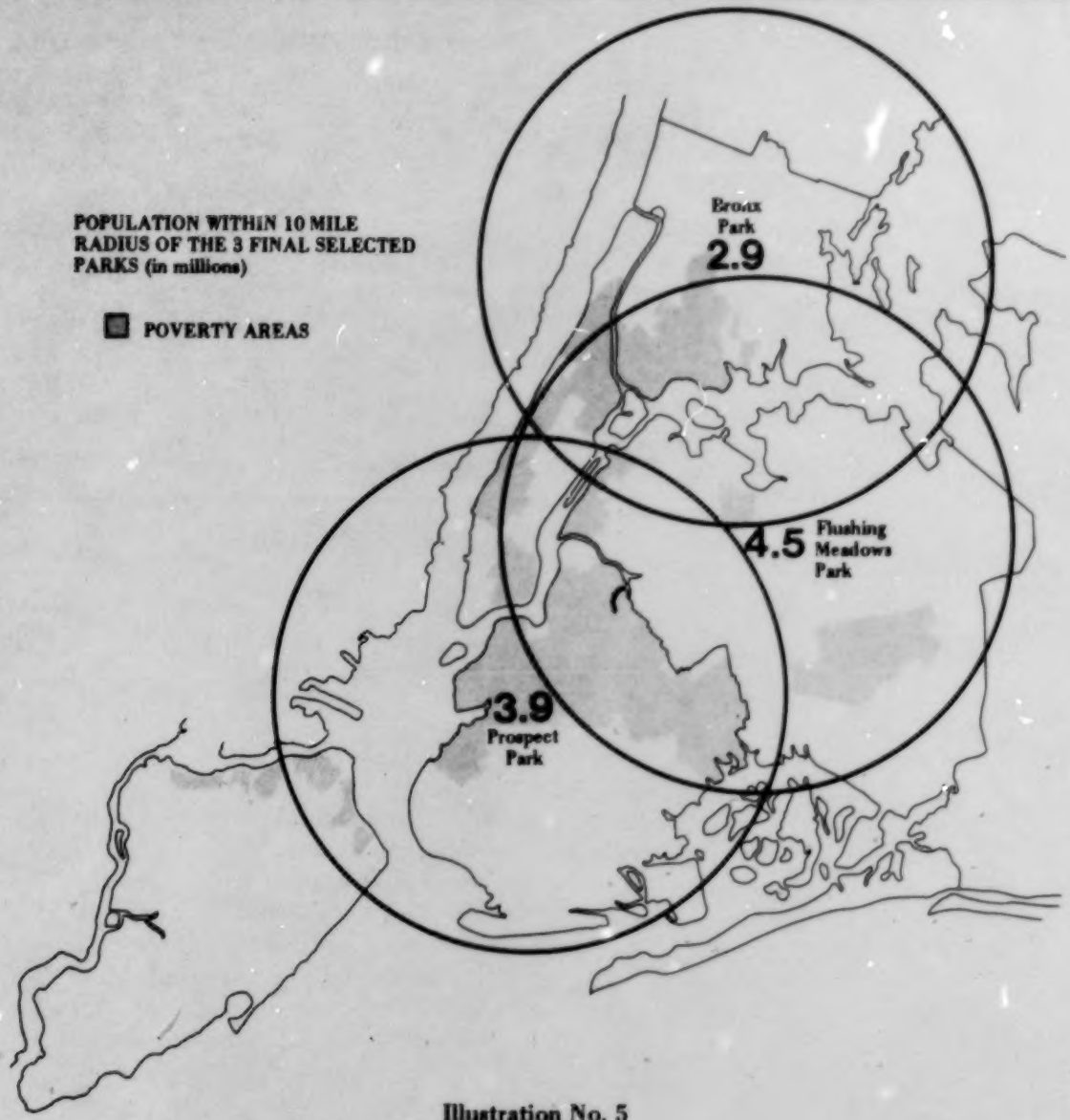



Illustration No. 5

**User Group Study**

After preliminary conceptualization of the park was completed, an overview survey was undertaken* of individuals and agencies serving children with disabilities. Reactions were sought to proposed play activities and to assumptions regarding physical adaptations, special play programs, and special monitoring for the playground. Information was sought so that the potential users of this facility might be defined by type of dysfunction. Several typical responses are appended.**

A second study was then undertaken to learn, in depth, of the effects of the disability on the child in this age group.*** What were the manifestations of the handicap or disease? Were there related disabilities? What were the physical limits imposed on the child by the handicap? What did children with this disability particularly enjoy? What would help them develop? What should be avoided? What were the special needs and safety requirements? What are his relations with other children, handicapped and able-bodied?

A general search of the literature was undertaken. Interviews, field visits, correspondence, and telephone discussions were employed in both studies.

*Appendix C, Overview Survey
**Appendix D, E, F, G, Responses to Overview Survey

**Summary of Findings - User Groups**

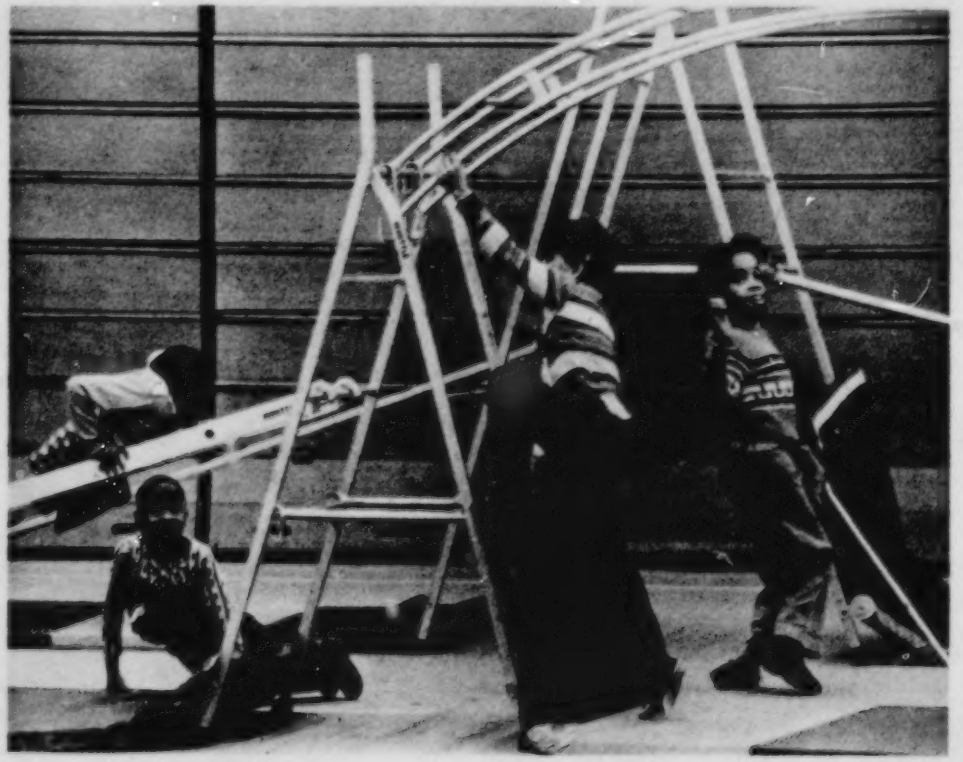
There are two distinct factors influencing potential use of the playground. The first is the size of the population affected by the particular disability. Because there has been no census of the disabled, agencies serving the handicapped were asked to indicate their perceptions of the largest potential user groups.

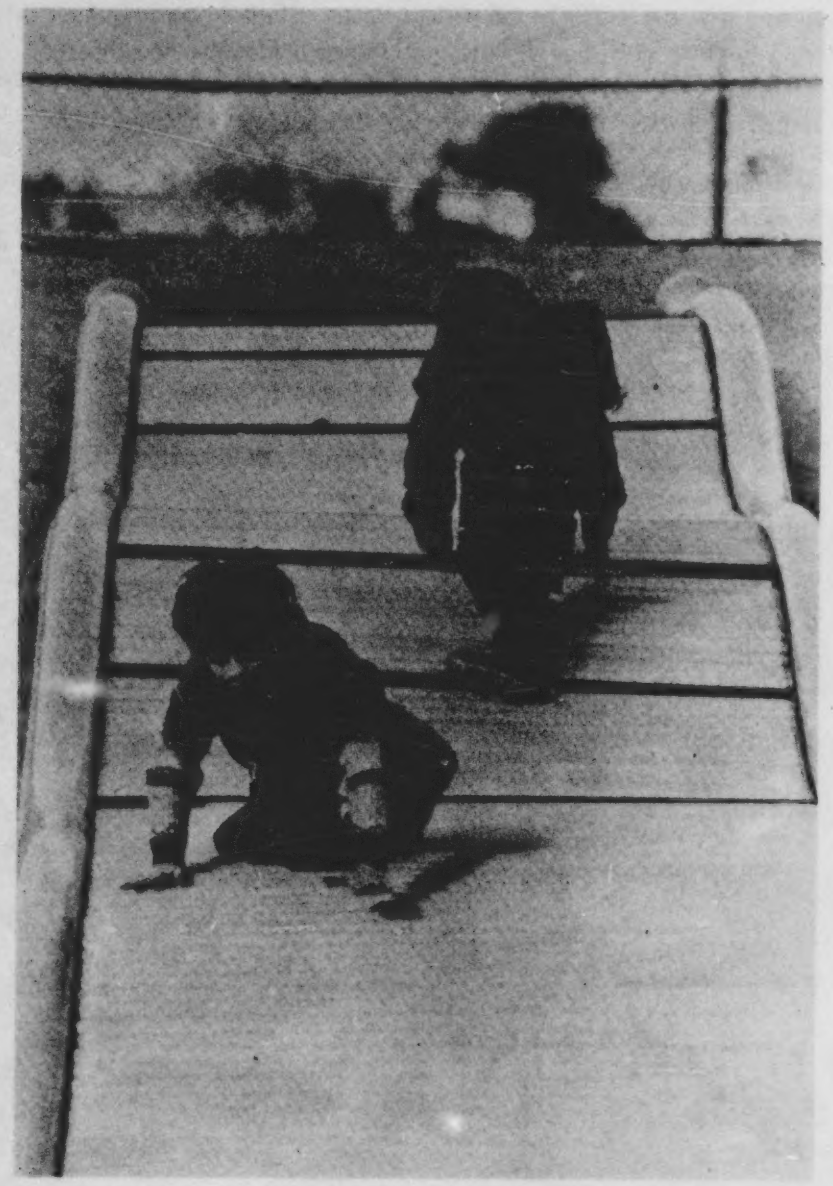
The second factor is whether or not children with a particular disability would benefit from, or require, special playground facilities. Children who are mildly retarded, although they are the largest group of disabled children, can use play facilities no different from those used by able-bodied children. Because they do not require special playground facilities, they are not expected to attend the playground any more frequently than able-bodied children.

For purposes of analysis, the disabilities perceived to be the most prevalent have been classified into five user groups. The sixth category is the able-bodied child. The user groups should not be considered as finite or exclusive categories. Many disabilities not specifically mentioned will also require special planning. The user groups are simply a way of breaking down the population to facilitate analysis. The playground is intended for all children in the appropriate age groups.

The surveys led to the conclusion that the largest group of special users of the playground would be children with neuromuscular and orthopedic handicaps. These include amputees and children with cerebral palsy, spina bifida, and muscular dystrophy. The second largest group was thought to be youngsters affected by mental retardation and brain injuries. The third group consisted of the blind or visually impaired and the deaf or hearing impaired. The fourth group was children with arthritis. Children with other chronic conditions, such as diabetes, heart disease, epilepsy, and hemophilia, would be the smallest group of special users of the playground.

The following sections deal specifically with these six groups. They contain descriptions of the children, suggested play activities, and design considerations.





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# USER GROUPS

## USER GROUP I
## ABLE-BODIED CHILDREN

This playground will be a new experience for the able-bodied youngster. He probably will have no prior experience in relating to children who are disabled. We anticipate that special considerations are necessary to make the able-bodied child feel that the playground is one that he too will find exciting and yet be comfortable in.

In general, it is expected that true integration of able-bodied youngsters will be easiest when the child is below school age, because children at that age tend to be more tolerant and freer of value judgments than older, school aged children. The younger children, however, may be more apt to embarrass their parents with questions about handicaps that they are exposed to. An older child is likely to swing from withdrawal and avoidance to the role of a "volunteer helper." The success of the playground and the program will be partially measured by the degree to which the able-bodied child is influenced to participate openly, fully and equally in play with disabled children.

### ACTIVITIES

The able-bodied youngster is used to being in command of his body, and actively mobile in a playground. He enjoys darting from one activity to another and using physical energy as his whim dictates. The challenge in this setting will be to check excess speed and total abandon. This goal would best be achieved by activities that substitute in-depth exploration and concentration for speed and space conquest.

For example, activities such as animal care and gardening will put all youngsters on an equal basis. Providing wheelchairs for all to use in wheelchair basketball and wheelchair mazes should be exciting and challenging. Blindfolded children will have fun and gain greater respect for blind children in identification games based on touch.

## USER GROUP II
## CHILDREN WITH NEUROMUSCULAR AND ORTHOPEDIC HANDICAPS

### DESCRIPTIONS

#### Cerebral Palsy

There are three main types of cerebral palsy. First, there is the *spastic* individual, who moves with difficulty. This condition varies from the minor occurrence, where one has an awkward gait, to the most extreme case, where one is completely stiff and unable to move voluntarily. Second, there is the *athetoid* individual, who has too much motion; his movements are involuntary and uncontrolled. Most athetoid individuals have some mobility and many of them can walk with difficulty. Very few of them are totally immobilized. Third, there is the *ataxic* child, who has jerky movements and disturbed balance and coordination. He may also have a disturbed sense of depth perception.

Many children with cerebral palsy are also mentally retarded, thereby being multiply handicapped. Many children with cerebral palsy use orthopedic devices or wheelchairs. The condition is not progressive.

#### Spina Bifida

Spina bifida is a malformation of the nervous system commonly known as "open spine." Most individuals with spina bifida are paraparetic – they have impaired control and sensation below the waist. Consequently many ambulate only with the aid of leg or knee braces, and/or crutches.

Some of them are wheelchair-bound. Normally they do not have bladder or bowel control. However, most of them have full use of their upper extremities. Mild retardation may sometimes be a secondary handicap. Spina bifida is not progressive.

#### Muscular Dystrophy

Muscular dystrophy consists of a group of chronic diseases whose most prominent characteristic is the progressive degeneration of the voluntary muscles. There are variations in the age of onset and the rate of progression. As a rule* the earlier the clinical symptoms appear, the more rapid is the progression.

The major type of muscular dystrophy is Duchenne. It occurs predominantly in males. Its onset usually occurs between the ages of two and six. Initially the muscles of the pelvic girdle are involved, and the sufferer develops postural defects, a waddling gait, and difficulty in ascending stairs and rising from the floor. Muscles of the shoulder girdle become involved a few years later.

Most children with muscular dystrophy walk until they are around six years of age, at which time they may go into braces to keep from falling. Frequently at the age of ten they are confined to wheelcharis. Generally they are unable to grasp well, and many have limited arm movement. Mental retardation is not a related secondary handicap.

*Muscular Dystrophy Association Description of Diseases, Patient and Community Service Programs

#### Amputees

Amputees may have loss of any of their extremities, or portions of them. Depending upon their condition, they may use artificial limbs, crutches, or wheelchairs.

### ACTIVITIES

The playground experience should offer social, motor, cognitive and sensory stimulation for the children. It should motivate them to try new things – the activities should be exciting and challenging. Ideally, the environment should motivate the wheelchair-bound child to use his abilities to the fullest -- to climb, crawl or wheel to the play equipment.

Individual play activities should give the child a variety of stimuli in movement, balancing, and texture. The designs should create interaction among handicapped and able-bodied children playing in small groups of two to five individuals. The following play activities should be provided for:

1. Swinging and rocking equipment of various sizes, with special back and arm supports.
2. Sliding surfaces that prevent children from falling out or tipping over, such as hill slides. Consideration should be given to children who must slide on their stomachs.
3. Multi-level equipment that provides climbing, walking, and balancing experiences.
4. Exploration of textures and resilient densities. Sand, lawn, and fabricated soft play areas should prove valuable in this context.
5. Play in shallow running water, including floating toys and gentle sprinklers. Particular attention must be paid to the safety of the handicapped child in water.
6. Crawling through tunnels and rolling over mounds.
7. Passive play, such as checkers and picnicking.

It was suggested that some larger group activities might be provided for in suitably modified forms. Provision of the following activities will depend upon the size of the playground and its location.

1. Basketball, volleyball, softball.
2. Puppet shows, wheelchair dancing.
3. Bowling.
4. Shuffleboard.
5. Horseshoes.
6. Miniature golf or croquet.

**SPECIAL FEATURES**

Listed below are special features that are necessary for this group of children:

1. Spaces and equipment should be accessible to and able to accommodate children using crutches, walkers, or canes; children sitting in and getting in and out of wheelchairs; children crawling on their hands and knees; and children who must stay in a prone position. Handrails for the different age groups must be provided. (They should not be greater than 3/4 of an inch in diameter so that they can accommodate amputees with hooks on artificial limbs.)

2. Many of these children have poor sitting balance. Some provision should be made for special back and arm rests. Another suggestion was that some benches should be provided without backs, so that these children could straddle the bench and lean on their hands and arms to support themselves.

3. Safety is a feature that must be built into any playground. However, children who have difficulty in moving and balancing themselves pose special problems. Consequently, a strong emphasis should be put on the creation of a safe environment in this new playground. Materials, placement of equipment, heights, and edges should all receive particular scrutiny. Another aspect of safety is control. Parents or supervisors should be able to monitor the children visually and occasionally exercise physical control over them, without undue difficulty. Arrangements might include separation of certain play activities, and placement of adult sitting areas so that they have strong visual control of activity areas.

4. Shade from trees during warm weather provides a pleasant way for anyone to keep cool. However, shade is particularly important for many disabled children. Drinking can be a difficult problem; consequently, they can dehydrate quickly. Some children must take medication that can interfere with the normal perspiration process and cause overheating. In addition, some drugs cause sun-sensitivity. The amputee has less skin area for his body to perspire with; therefore, he needs shade. (Many spina bifida children have problems with spinal fluid building up in the brain, and this condition combined with excessive heat may result in the child having a seizure.)

5. The location of extra drinking fountains must be considered for the child who has difficulty getting about. Drinking fountains and toilet rooms must be accessible to the disabled. In addition many of the children of all ages do not have bladder and bowel control. Provision must be made for shielded diaper changing areas for the older children.

## USER GROUP III
## CHILDREN WITH MENTAL RETARDATION AND BRAIN INJURIES

### DESCRIPTIONS

#### Mental Retardation

Mental retardation may be caused by brain damage, post-birth trauma, genetic reasons, or unknown factors. The mentally retarded child is developmentally disabled. Development is not only slower in mentally retarded children, it is frequently uneven and different from normal development patterns. The retarded child may have varying degrees of maturity in each facet of development -- physical, social, intellectual, and emotional. Retardation is generally classified into four broad functional categories -- mild, moderate, severe, and profound retardation.

#### Mildly Retarded

Slightly less than 90 per cent of the mentally retarded are classified as mildly retarded. They are very similar to non-retarded children except that their rate and degree of development is slower, and retardation of neuromuscular development may lead to retardation of the motor skills. The recreational needs of the mildly retarded can be met in any good playground facility designed for the able-bodied child.

#### Moderately, Severely, Profoundly Retarded

Around ten per cent of the retarded are classified as moderately, severely, or profoundly retarded. Approximately 30 per cent of the people in these categories have serious secondary handicaps. Children suffering from Downs Syndrome, or mongolism, often have congenital heart defects as well; the profoundly retarded child may be spastic. Otherwise secondary handicaps have no set pattern.

There is unusual slowness in overall development and a qualitative difference in thought organization; there may be a lack of physical self-awareness. All of these children lag in motor development, perception, balance, and coordination. Some of them are not toilet trained. Many may not be able to understand the cause of danger, or any cause and effect, and so safety is a major concern.

#### Brain Injured Children

Although brain injuries may result in many different disabilities, the term is generally used to describe the non-retarded child who is hyperactive. The brain-injured child will also generally have perceptual disabilities. A large portion have poor gross motor coordination and are several years behind able-bodied children in physical coordination. The brain-injured child is impulsive and quick and may be unaware of danger to himself or others. He may be frenetic and easily distractable. Additional manifestations may include immaturity, difficulties with fine motor coordination, poor judgment, speech problems, and perseveration problems (such a child may repeat an action or word continuously). Unlike the mentally retarded child, the brain-injured child usually has very quick motions.

### ACTIVITIES

The play experience for retarded and brain impaired children should encourage motor activities to help them improve their coordination and should be sensitive to their physical coordination difficulties. A child with one of these disabilities very often has a poor perception of his body, its mobility, and the relationship of his body to space. The design of the facility should foster experiences with differentiation of spaces, shapes, and forms. The child should be tempted to try something new and to explore his environment. However, for reasons of safety and supervision the environment must be a contained area.

Many parents tend to baby a retarded child, hindering his development. It would be best if facilities were designed so that the child can gain a sense of being his own master; he will then find his own level in play.

Calming activities are recommended for the hyperactive child. Among these activities

are play with water or with soft or inflatable play equipment, and play in nature areas. Lively activities that allow a safe discharge of energy -- such as play with punching bags, or jumping -- are also recommended.

Specific suggestions for this group include the following:

1. Play involving motor skills. Climbing, especially hand-over-hand climbing, and activities that involve crawling will help coordination and gross motor skill development.

2. Jumping and bouncing activities, similar to play on a trampoline designed with special safety features.

3. Activities that develop the child's eye-hand and eye-foot coordination and spatial perception. One therapist suggested a fixed "baseball stand," which would have a retractable ball strung to it.

4. Balancing and walking on railroad ties, or other activities that develop gait and sense of balance.

5. Mazes -- designed so the child is not aware that he can be watched. These are fun, invite exploration, and help the child's perceptual development.

6. Sand and water play, in appropriate forms for all age groups, including the older and larger children.

7. Flexible soft play equipment (foam blocks have been suggested) so the child can create his own environment. Outdoor inflatables that give slightly when crawled and walked on will help the child's sense of cause and effect.

8. Activities that develop fine motor coordination. These might include play equipment with tactile and visual appeal that involves finger movement.

9. Music, dance and art activities.

10. A nature area

Some group activities mentioned for User Group II were also suggested for these children. However, these activities must also be modified to meet the needs of children with poor coordination and perceptual difficulties - for instance, basketball hoops will need to be lower. Competitive play is not recommended. In general, individual, parallel, or cooperative play would be best.

**SPECIAL FEATURES**

1. The most prominent requirement for this group is safety. Many of these children are not aware of cause and effect and do not perceive danger. Provisions must be made to keep them from injuring themselves and others. Rubberized areas have been suggested. Falls should be anticipated; these children may climb (if physically able) higher than they can safely go, without realizing the danger.

2. All of these children will need supervision. The design should allow for the easy exercise of maximum control. This is an important consideration for individual play equipment, but it must also be taken into account in the design of the whole playground. In particular, the design must ensure that a child will not be able to wander off and get lost, or run into danger.

3. A substantial number of these children will have secondary handicaps, as in User Group II, and will require accessibility features such as those mentioned in User Group II.

4. Shade is needed, and easily accessible drinking fountains are a special consideration. Some authorities believe that dehydration or overheating may be a problem. Some children require medication which may cause sun-sensitivity.

5. Shielded diaper-changing areas must be provided for those older children who are not toilet-trained or who lack bladder or bowel control. Additionally, some older children will need adult supervision or assistance in the normal toileting process. Provision should be made for large private toilet cubicles so that an adult may accompany an older child of either sex.

## USER GROUP IV
## CHILDREN WITH VISUAL AND HEARING IMPAIRMENTS

### DESCRIPTIONS

Children who have lost their sight completely are referred to as blind; those with all other degrees of visual loss are considered to have impaired vision. Occasionally, these children are afflicted with other disabilities as well.

Children who are deaf or hard of hearing may have balance and perceptual difficulties directly related to their hearing difficulties.

### ACTIVITIES

Play facilities for the blind or visually impaired child should emphasize the use of his other senses. The deaf or hearing impaired child's play needs are not significantly different from those of an able-bodied youngster, except obviously, that visual information must replace all aural information.

In addition to creating a fun place for the able-bodied youngster, special criteria for User Group IV would consist of the following:

1. Use of strong visual cues to supplement aural cues for the deaf and hard of hearing. For instance, signs should be brightly colored and graphically incisive. Strong contrast of color and shade is also helpful for the partially sighted child.

2. Sound play is fun for all youngsters, but will get special responses from blind children. Strong vibrations that have qualities of rhythm and tone could become sound play for deaf children. Basketball hoops might be equipped with sound devices so that blind children may know where to throw the ball.

3. Space and equipment for the blind child should emphasize textural qualities.

4. Natural areas with fragrance gardens have been recommended for all children, but especially for blind youngsters.

5. Special swinging, balancing, and moving activities should be provided for those deaf children with balance and perceptual difficulties.

6. A multi-level, milti-activity maze has been suggested for use by all children. It could be equipped with braille instructions for blind youngsters.

### SPECIAL FEATURES

1. Safety is of special concern for children who have difficulty seeing or hearing. Soft areas must be provided for blind children, who may fall while climbing equipment. A child who is hard of hearing must be protected not only from personal injury but also from damage to his expensive hearing aid.

2. Special textures and braille signs should be used to help the blind child identify locations and activities within the playground. Waist-high fencing and guard rails have also been recommended.

3. Water play must be designed to be safe for the blind child, and the effect of water on hearing aids must also be taken into consideration.

## USER GROUP V
## CHILDREN WITH ARTHRITIS

### DESCRIPTIONS

The most common arthritic or rheumatic disease amongst children is juvenile rheumatoid arthritis. It may appear at any age, and it cripples more girls than boys. Painful joint inflammation, soreness, stiffness, and limitation of motion are common among these children. Joints may be deformed, twisted, and swollen. Juvenile rheumatoid arthritis varies in severity and is characterized by periods of improvement, or remission, followed by new flare-ups that occur without warning. Some children must use canes or crutches while walking.

### ACTIVITIES

The arthritic child needs individual play with an emphasis on gradation of activities. He must be able to play at a pace that is tolerant of his physical condition. Competitive play can be harmful to the arthritic child, because it may tempt him to overstress arthritic joints. The individual play activities listed for User Group II would also be good for the arthritic child.

### SPECIAL FEATURES

1. Rest between periods of play is of utmost importance to the arthritic child. Consequently, provision must be made for seating areas with passive play activities available that will encourage these children to rest when they need to.

2. Large group activities should not be planned for these children.

3. Special toilet facilities with higher seats and grab bars must be provided.

## USER GROUP VI
## CHILDREN WITH OTHER CHRONIC CONDITIONS SUCH AS HEART DISEASE, DIABETES, EPILEPSY, AND HEMOPHILIA

### DESCRIPTIONS

It is not possible to enumerate and describe all of the conditions or disabilities which may affect children. Some affect their ability to use or safely enjoy standard playground facilities, but others may not, or may have only a minimal effect.

User Group VI includes those four conditions that, in addition to the ones included in previous user groups, were most commonly perceived as possibly requiring special recreation planning. Once again, it is important to note that many disabilties not mentioned in this report will require special planning. Omission of a particular disability in this report does not mean that the playground will be unable to accommodate a child with that disability. The playground will be for all children in the appropriate age group.

#### Heart Disease

Heart disease in children usually takes one of two forms: congenital heart deformity, or disorders induced by rheumatic fever. A congenital heart deformity is a defect of some part of the heart, or a major blood vessel near the heart, that develops prior to birth. As a general rule children with congenital heart

conditions may have secondary disabilities such as diabetes. Rheumatic fever frequently weakens the pumping action of the heart, and the heart valves may become inflamed. Resultant scar tissue may cause continuing interference with normal blood flow.

**Diabetes**

Diabetes results from failure of the pancreas to produce sufficient insulin, which is necessary to use food properly. The condition is controlled by diet and insulin intake. Diet and insulin intake are adjusted in anticipation of physical activity. The known diabetic child receiving proper care will have no physical restrictions, and will use a playground as any able-bodied child.

**Hemophilia**

Hemophilia is a genetically transmitted disorder of blood coagulation. It affects males only. Children with hemophiliac conditions must be on a continuous alert for the occurrence of hemorrhages especially into the joints.

**Epilepsy**

Epilepsy is the symptom of a neurological disorder that manifests itself in seizures, resulting from too much energy being discharged from the brain. Seizures vary greatly in their intensity and duration. They may involve loss of consciousness, stiffening of muscles, and jerks of the limbs. Drowsiness, day dreaming, confusion, or fatigue may follow an epileptic seizure. Retarded children may have epileptic seizures and children with cerebral palsy and spina bifida may have similar seizures.

## ACTIVITIES

Children within this user group, for the most part, can enjoy the same activities as able-bodied children. However, on occasion some will have lower energy levels than able-bodied children and consequently will have to modify their activities.

## SPECIAL FEATURES

1. Many of these children tire easily and on occasion will have weak spells. Consequently provision of attractive rest areas with passive play activities should be considered in the design of the playground.
2. The use of resilient surfaces and the avoidance of sharp edges is especially important for hemophiliac and epileptic children.
3. As in User Groups II and III, shading is of particular concern to some of the children within this group.
4. Safety in water play is of special concern to the epileptic child, who may have an unexpected seizure and loss of consciousness.
5. Diabetic children require immediate availability of orange juice, fruit, or soft drink with added sugar in case of insulin reaction.

# CONCLUSIONS

There are a wide variety of special needs that must be planned for in designing the playground. However, despite the wide variance in specific problems, a surprising commonality of needs and possible solutions emerges.

**Activities**

***Multiple levels of activity are needed, from passive games to active sports.*** Although there may be differing reasons for the activity depending upon the user group, the following types of activities are suggested to meet the recreation requirements of the children in all of the user groups:

1. *A multi-level multi-activity maze* (all groups).

2. *Activities that provide sensory stimulation; textures and tactile play, resilient densities, soft play equipment* (especially User Groups II, III, IV, V).

3. *Play involving body movement - swinging,* rocking, sliding, climbing, crawling and jumping (especially User Groups II, III, IV, V).

4. *Balancing and walking activities* (especially User Groups II, III).

5. *Water play* (all groups).

6. *Sand play* (all groups).

7. *Passive play and interesting rest areas* (especially User Groups II, V, VI).

8. *Grassy areas and nature areas* (all groups).

9. *Modified group sports and other group activities.* Many classic sports can be adapted for play by the disabled child with some change in the physical setup (especially User Groups II, III, IV).

***Able-bodied children (User Group I) and those with very similar play needs (User Group VI) will enjoy all of the above activities.***

***Multiple levels of excitement are needed,*** from activities that calm through to those that stimulate and excite.

Although facilities for individual, parallel, cooperative, and group play are needed, ***it is expected that parallel and cooperative play will be the major modes of interaction.***

***Multiple levels of skill should be planned for.*** The ideal facility is one that can be used successfully by children of various levels of ability, skill, and agility, and present challenge and fun to each.

**Special Considerations**

Persons concerned with the special needs of children with disabilities generally have one of two points of view when it comes to the issue of play. One view is that the disabled child needs constant protection and shelter. The other is that the child should be encouraged to act independently. Among the causes of these differing attitudes are the nature of the disability under consideration and the parent's or professional's philosophy, emotional makeup, and judgement based upon years of experience with the disabled child. Both views are valid, and interestingly enough proponents of both points of view support the concept of the integrated playground as presented in this report. It is agreed that *facilities must be designed to allow parental and staff monitoring at fairly close range. However, skillful placement and design can leave the child unaware of the adult's closeness, fostering an illusion of independence.*

*For some children, a more closely contained area is necessary for monitoring and safety* (especially User Groups II, III).

*Safety is of paramount importance. Resilient surfaces and rounded edges on all equipment are mandatory.* Falls should be anticipated from all equipment. *Grab bars are needed. Handrails,* not greater than 3/4 of an inch in diameter, should be provided.

*Shading is essential for most groups* (especially User Groups II, III, VI).

*Drinking fountains must be readily accessible* for children who have difficulty getting about and for children who dehydrate quickly (User Groups II, III, V, VI).

*Special attention has to be given to toilet facilities.* Toilets must be usable by the wheelchair-bound. Provision must be made for shielded diaper-changing areas for older children who lack bladder and bowel control. *Probably a modified type of bathroom and new type of changing and cleaning area will have to be designed* (User Groups II, III, V).

*Activities must be planned at multiple physical levels.* Children will lie, crawl, sit, sit at varied wheelchair levels, ambulate at varied wheelchair levels, stand, and run.

It is assumed that disabled children will be brought to the playground and supervised by their parents or by the agencies that brought them. However, *it would be desirable to train park personnel to be sensitive to the special needs of the handicapped.* Several agencies volunteered to train park staff along these lines.

A building will be needed in the playgorund to provide – in addition to toilet facilities – storage space, an office for the staff, and a private area for children who require rest or medical attention. The first aid area should have a direct telephone line to a nearby emergency facility, to provide for quick consultation if necessary.

# SITE ANALYSIS

## INTRODUCTION

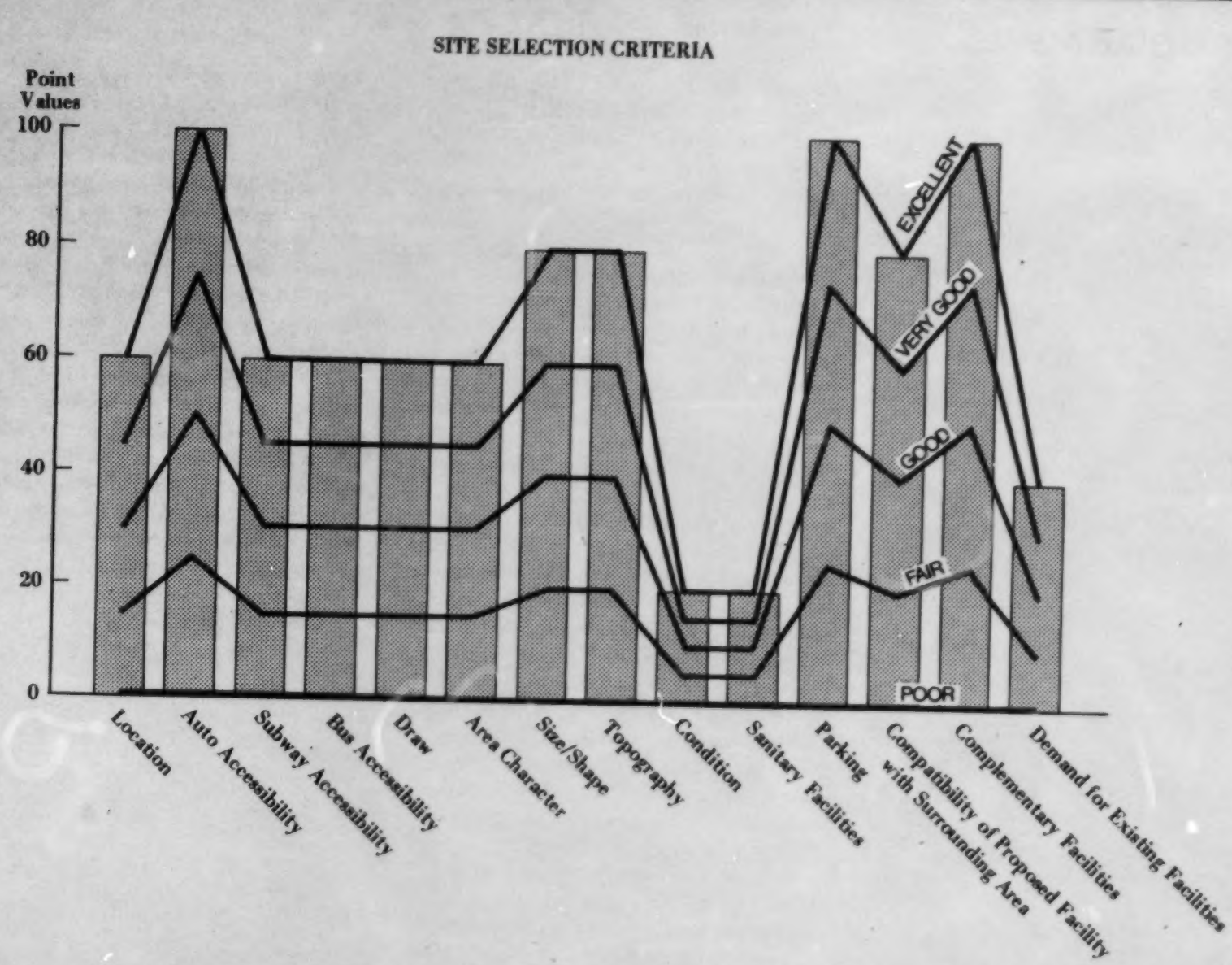
The desirability and need for a free-play recreational facility to serve the special requirements of children with disabilities is established in the first part of this report. This portion deals with the problems of identifying and evaluating possible sites.

For the present, only a single facility can be contemplated. It is therefore necessary to select a site that will be convenient, ensure the greatest usage, and lend itself to proper development for the intended use. The preferred site was chosen after establishing basic criteria for selecting a site, and then visiting and evaluating a large number of locations.

### Summary of Recommendations

The site selection process for this demonstration playground started with a transportation study, which established that the preferred locations are in Bronx Park, Prospect Park, or Flushing Meadow Park. Within these parks, 12 sites were then identified, analyzed, and evaluated against criteria established for this unique project. These criteria are location; accessibility; availability of parking; compatibility with the surrounding park area and with the adjacent community; availability of complementary activities; attractiveness, or "draw," of the existing park; present condition of the site; its size, shape, and topography; demand for facilities now on the site; and availability of sanitary facilities.

Each of the 12 sites was rated according to a point system, in terms of its ability to fulfill each of the criteria. (For a description of the point system, see the section following - Criteria and Point Value System.) One site -- 3B, in Flushing Meadow Park -- posted a score of 745, considerably higher than the scores for the other sites. It is a gently sloping grassy area adjacent to the Children's Farm, the Carousel, and the Zoo, and relatively near the Hall of Science Museum. It scores very high in all characteristics considered to be of prime importance -- accessibility, parking, and availability of complementary activities. Site 3A, also in Flushing Meadow Park, placed second with a total point score of 685. The higher rating for Site 3B is due to the more convenient location of parking. In conclusion, it is recommended that the site for the demonstration playground be located in Flushing Meadow Park on Site 3B.


SITE SELECTION CRITERIA
Point Values
100
80
60
40
20
0
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
Location
Auto Accessibility
Subway Accessibility
Bus Accessibility
Draw
Area Character
Size/Shape
Topography
Condition
Sanitary Facilities
Parking
Compatibility of Proposed Facility with Surrounding Area
Complementary Facilities
Demand for Existing Facilities

## CRITERIA & POINT VALUE SYSTEM

It is recognized that with the many criteria to be considered and the variables in site characteristics, it is difficult to arrive at an objective evaluation of a site and then compare it to other sites. For this reason, a set of standard values and a point scoring system is used. It is purposely arranged into broad categories and approximate values because it was felt that further refinement would not necessarily establish with certainty the superiority of one location over another. Where scores are close, selection should be made on the basis of more detailed analysis.

### Methodology

The criteria are ordered into groups that correspond generally to location, site characteristics, and surrounding area. In "Site Descriptions and Evaluations," alongside each criterion for a site, there is a description of the particular characteristic that, in turn, establishes a basis for the evaluation.

The chart "Point Values - Site Selection Criteria" shows each criterion rated in relation to all other criteria. Those considered most important are given the maximum value of 100, and those considered less important receive lesser values. Evaluations are established as "excellent," "very good," "good," "fair," and "poor." Point scores are assigned by dividing the maximum value of a criterion into four equal parts, with poor equal to zero, fair equal to one-quarter the maximum value, good equal to one-half the maximum value, and so forth. The verbal evaluations are then assigned the appropriate numerical values, and the numbers are totalled to produce the score for the sites. The results of this analysis are shown on the chart "Summary Comparison of Sites."

### Ranking of Criteria

It is expected that children with limited physical capabilities and mobility will be coming to the playground with members of their family or friends or in larger groups. The principal modes of transportation are expected to be private car and special bus. Subways and public buses are expected to be used to a much lesser extent. The playground will have citywide appeal, and so it is expected that many families will be coming from some distance and staying the day. The facility will have greater attraction if there are nearby activities for all the members of the family. In view of the above considerations, the major criteria in evaluating a site are felt to be accessibility, parking, and complementary activities.

Second in importance are compatibility with surrounding area, site size and shape, and topography. One acre is considered the minimum area acceptable. Although a flat site presents fewer problems, topography that has gentle slopes and easy grades is considered as having interesting possibilities for imaginative development. Existing trees on a site are considered desirable.

Next in ranking of criteria are geographic location, "draw," and compatibility with the surrounding park and the community. Geographic location is not considered nearly so important as accessibility. However, it has significance in that given equal accessibility, a central location is more desirable. "Draw" is the ability to attract a large number of people from the widest area.

In some instances, the proposed location is an existing playground. In such cases it is assumed that the new facility would be able to serve those using the present facility as well as handicapped and able-bodied children from around the city. For this reason, the demand for the existing facility is considered of lesser importance.

Lowest in the classification of criteria are the present condition of the site and availability of sanitary facilities. The basis for this ranking is the expectation that any shortcomings in these categories can be remedied. A site in poor condition is rated higher than one in good condition because it is more logical and probably less costly to replace a poor facility than a good one. The convenience and necessity of sanitary facilities at a playground to be used by disabled children is not to be construed as being considered unimportant because it is ranked in the lowest classification of criteria. Since sanitary facilities will have to be specially adapted to meet the needs of the handicapped even an existing facility will require substantial alteration.

## SITE DESCRIPTIONS AND EVALUATIONS

**Site 1A** At Bronx Park, south of Boston Road and west of Bronx Park East. Existing playground, .58 acre, circular.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near the geographic center of the Bronx. | Poor. Too far from other boroughs. |
| ACCESSIBILITY | | |
| Automobile | Bronx River Parkway and Pelham Parkway are adjacent to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT West Side and IRT East Side stop approx. two blocks from site. | Very good. Good subway transportation available. |
| Bus | BX 7, BX 12, BX 13 and BX 28 stop adjacent to or approx. two blocks from site. | Very good. Good bus transportation available. |
| DRAW | Regional park and recreation area. | Good. A separate [illegible] near Bronx Zoo. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park, mostly middle and lower middle class adjacent to park. | Fair. In a visually open & accessible area. Community may object to losing present facility. |
| SIZE/SHAPE | .58 acre, circular. | Poor. Too small. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground in good condition. Facilities available are: swings, shower, and jungle gym. | Poor. Would result in the elimination of an existing operational facility. |
| SANITARY FACILITIES | Existing comfort station adjacent to site. | Very good. Sanitary facilities available adjacent to site. |

| | | |
|---|---|---|
| PARKING | Parking available across Bronx Park East approx. 200' from site. Parking also available across Bronx River Parkway (approx. 600' from site, through underpass). | Very good. Parking available nearby. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities in the park. Residential area across Bronx Park East. | Very good. Compatible with adjacent recreational activities. |
| COMPLEMENTARY FACILITIES | Other facilities in immediate area are athletic fields, tennis courts, handball courts. Children's Farm adjacent to Bronx Zoo parking. | Very good. Other recreational activities available nearby. |
| DEMAND FOR EXISTING FACILITIES | Considerable demand for existing playground. | Poor. Existing facility required for continued use. |

**Site 1B** At Bronx Park, south of Boston Road and east of Bronx Park East. Natural area, 2.6 acres.

| | | |
|---|---|---|
| LOCATION | Near the geographic center of the Bronx. | Poor. Too far from other boroughs. |
| ACCESSIBILITY | | |
| Automobile | Bronx River Parkway and Pelham Parkway are adjacent to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT West Side and IRT East Side stop approx. two blocks from site. | Very good. Good subway transportation available. |
| Bus | BX 7, BX 12, BX 13 and BX 28 stop adjacent to or approx. two blocks from site. | Very good. Good bus transportation available. |
| DRAW | Regional park and recreation area. | Good. A separate area near Bronx Park Zoo. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park, mostly middle & lower middle class adjacent to park. | Very good..In a visually open & accessible area. Not tied to any community group. |
| SIZE/SHAPE | 2.6 acres, irregular. | Good. Adequate size and shape. |
| TOPOGRAPHY | Rough, hilly terrain. Rock outcrop on part of site. | Poor. Difficult for handicapped to use. |
| CONDITION | Undeveloped natural area. | Fair. Difficult to develop. |
| SANITARY FACILITIES | Existing comfort station adjacent to site. | Very good. Sanitary facilities available adjacent to site. |
| PARKING | Parking available across Bronx Park East (approx. 200' from site). Parking also available across Bronx River Parkway (approx. 600' from site, through underpass ). | Very good. Parking available nearby. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities in the park. Residential area across Bronx Park East. | Very good. Compatible with adjacent recreational activities. |
| COMPLEMENTARY ACTIVITIES | Other facilities in immediate area are athletic fields, tennis courts, handball courts, and existing playground. Children's Farm adjacent to Bronx Zoo parking. | Very good. Other recreational activities available nearby. |
| DEMAND FOR EXISTING FACILITIES | Natural area. Not presently used. | Very good. No conflicting requirements to prevent development. |

**Site 2A** At Prospect Park, north of Lincoln Road and west of Ocean Avenue. Existing playground, .4 acre.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near the center of Brooklyn. | Fair. Distant from the Bronx and northeastern Queens. Convenient to Manhattan and Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Prospect Expressway ends approx. 1 – 1/2 miles from site. Eastern Parkway is approx. 3/4 mile, and Flatbush Avenue is four blocks from site. Borders on Ocean Avenue and Lincoln Road major collector streets. | Fair. No direct access from major arterial highways. |
| Subway | IND and BMT stop within four blocks. IRT stops within eight blocks. | Very good. Good subway transportation available. |
| Bus | B 49 and B 33 stop adjacent to playground. B 41 stops approx. two blocks from site. | Very good. Bus transportation available. |
| DRAW | Regional park and recreation area. | Excellent. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park. Racially mixed, lower middle and middle class area to the east of park. | Poor. Area separated by roads. Community may object to losing present facility. |
| SIZE/SHAPE | .4 acre, semicircular. | Poor. Too small. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground in fair condition. Facilities available are: swings, shower basin, slides, seesaws, jungle gym and sand pit. | Poor. Would result in the elimination of an existing operational facility. |

| | | |
|---|---|---|
| SANITARY FACILITIES | Existing comfort station adjacent to site. | Very good. Sanitary facilities available adjacent to site. |
| PARKING | Parking available across East Lake Drive and Lincoln Road approx. 1,000' from site. Intervening vehicular traffic. | Fair. Parking is inconvenient and requires road crossings by pedestrians. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities in park. Residential area across Ocean Avenue. | Fair. Compatible with park activities, but it is not contiguous to most of them. Limited relationship to adjacent residential area. |
| COMPLEMENTARY FACILITIES | Other facilities in the park are zoo, lake, bicycle path and existing playground. | Good. Other recreational activities, except for existing playground, are not contiguous to site. |
| DEMAND FOR EXISTING FACILITIES | There is light demand for the existing playground. | Good. Limited demand for existing facility. |

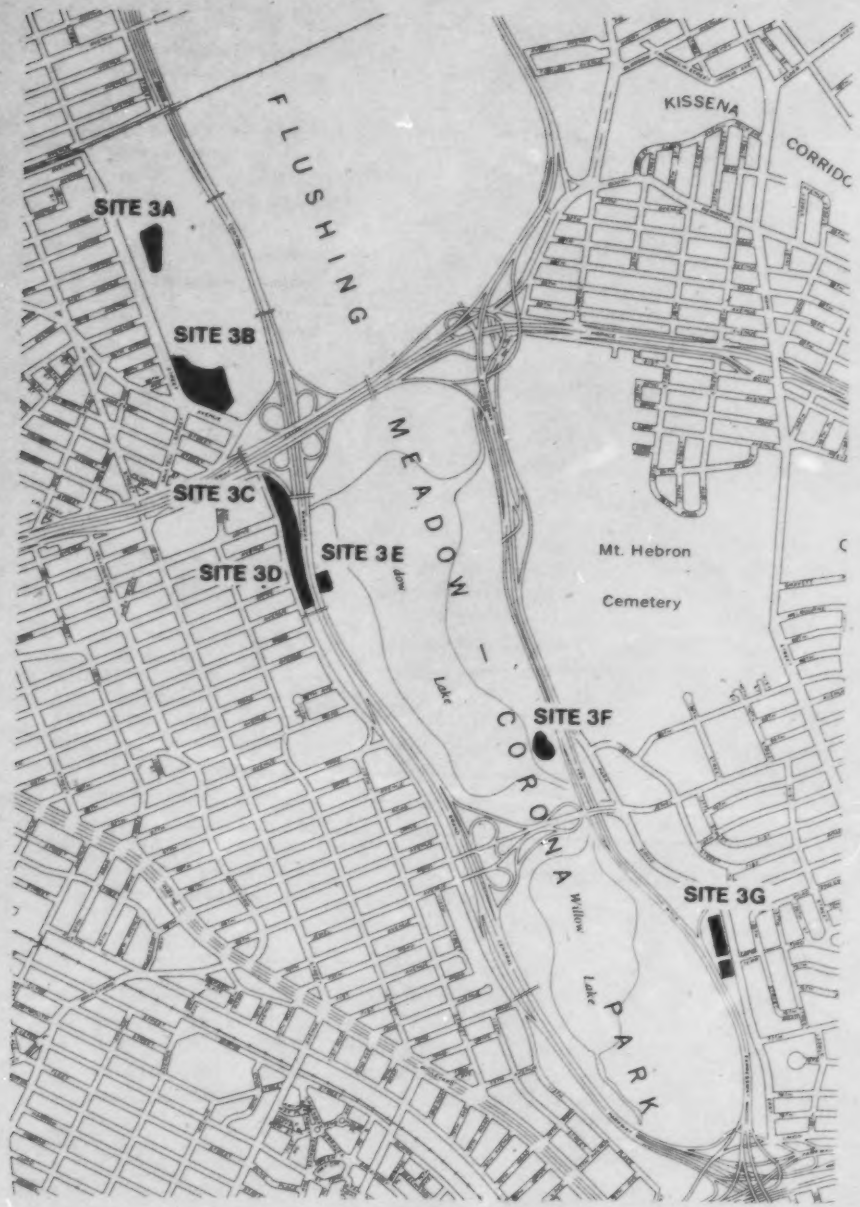
**Site 2B** At Prospect Park, south of Lincoln Road and west of Ocean Avenue. Open natural area, two acres.

| | | |
|---|---|---|
| LOCATION | Near the center of Brooklyn. | Fair. Distant from the Bronx and northeastern Queens. Convenient to Manhattan and Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Prospect Expressway ends approx. 1 - 1/2 miles from site. Eastern Parkway is approx. 3/4 mile and Flatbush Avenue is four blocks from site. Borders on Ocean Avenue and Lincoln Road, major collector streets. | Fair. No direct access from major arterial highways. |
| Subway | IND and BMT stop within four blocks. IRT stops within eight blocks. | Very good. Good subway transportation available. |
| Bus | B 49 and B 33 stop adjacent to playground. B 41 stops approx. two blocks from site. | Very good. Bus transportation available. |
| DRAW | Regional park and recreation area. | Excellent. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park, neutral character. Racially mixed, lower middle and middle class area to the east of park. | Very good. In a visually open and accessible area. Community probably not "possessive" of this area. |
| SIZE/SHAPE | Two acres, nearly rectangular. | Very good. Good size and configuration. |
| TOPOGRAPHY | Flat, with some variation in grade. | Excellent. Optimum topographic conditions. |
| CONDITION | Open natural area, with good existing trees. | Very good. No destruction of existing facility necessary. |
| SANITARY FACILITIES | Existing comfort station available at Site 2A approx. 100' from site. Intervening vehicular traffic. | Fair. Sanitary facilities available nearby, but require crossing of busy signal controlled intersection. |
| PARKING | Parking available across East Lake Drive, approx. 600' from site. Intervening vehicular traffic. | Fair. Parking is inconvenient and requires road crossing by pedestrians. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities in park. Residential area across Ocean Avenue. | Fair. Compatible to park activities, but it is not contiguous to most of them. Limited relationship to adjacent residential area. |

| | | |
|---|---|---|
| COMPLEMENTARY FACILITIES | Other facilities in the park are zoo, lake, bicycle path and existing playground. | Good. Other recreational activities, except for existing playground, are not contiguous to site. |
| DEMAND FOR EXISTING FACILITIES | Natural area, not presently used. | Very good. No conflicting requirements to prevent development. |

**Site 2C** At Prospect Park, south of Lincoln Road and west of Ocean Avenue. Existing playground, .4 acre.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near the center of Brooklyn. | Fair. Distant from the Bronx and northeastern Queens. Convenient to Manhattan and Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Prospect Expressway ends approx. 1 - 1/2 miles from site. Eastern Parkway is approx. 3/4 mile, and Flatbush Avenue four blocks from site. Borders on Ocean Avenue and Lincoln Road, major collector streets. | Fair. No direct access from major arterial highways. |
| Subway | IND and BMT stop within four blocks. IRT stops within eight blocks. | Very good. Good subway transportation available. |
| Bus | B 49 and B 33 stop adjacent to playground. B 41 stops approx. two blocks from site. | Very good. Bus transportation available. |
| DRAW | Regional park and recreation area. | Excellent. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park, neutral character. Racially mixed, lower middle class area to the east of park. | Poor. A visually separate area. Community is probably very "possessive" of this adventure playground. |
| SIZE/SHAPE | .4 acre, irregular. | Poor. Too small. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground, recently constructed. Existing trees. Facilities available are playhouse, swings, tot tables, sand pit with wood climber. | Poor. Would result in the elimination of a new, operational facility. |
| SANITARY FACILITIES | Existing comfort station at site 2A, approx. 650' from site. Intervening vehicular traffic. | Fair. Sanitary facilities available nearby, but require crossing of busy signal controlled intersection. |
| PARKING | Parking available across East Lake Drive, approx. 350' from site. | Fair. Parking is inconvenient and requires road crossing by pedestrians. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities in park. Residential area across Ocean Avenue | Fair. Compatible to park activities but it is not contiguous to most of them. Limited relationship to adjacent residential area. |
| COMPLEMENTARY FACILITIES | Other facilities in the park are zoo, lake, bicycle path and existing playground. | Good. Other recreational activities, except for existing playground, are not contiguous to site. |
| DEMAND FOR EXISTING FACILITIES | Existing playground is well used by local residents. | Poor. Serious conflicting requirement for existing recreational use. |




**Site 3A** At Flushing Meadows Park, north of Terrace On The Park, west of the Zoo. Natural area, 2.5 acres.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Grand Central Parkway, Long Island Expressway and Van Wyck Expressway are close to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT Flushing line stops approx. nine blocks from site. | Poor. Too far from subway link |
| Bus | Q 23 stops approx. two blocks from site. Q 48 stops approx. nine blocks from site. | Fair. Local bus routes, serving small, low density areas. |
| DRAW | Regional park and recreation area. | Excellent. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park. Neutral character. | Excellent. A visually open and accessible area. Not tied to any community group. |
| SIZE/SHAPE | 2.5 acres, nearly rectangular. | Very good. Good size and configuration. |
| TOPOGRAPHY | Flat, neutral area. | Excellent. Optimum topographic conditions. |
| CONDITION | Open natural area. Good existing trees. | Very good. No destruction of existing facility necessary. |
| SANITARY FACILITIES | Existing comfort station in zoo approx. 850' from site. No intervening vehicular traffic. | Fair. Sanitary facilities available at some distance. |

| | | |
|---|---|---|
| PARKING | Parking available approx. 960' from site. Possible to provide a new parking facility approx. 200' from site. No intervening vehicular traffic. | Fair. Parking facilities available nearby. Possible additional site available. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities. | Excellent. Compatible with existing children's recreational activities. |
| COMPLEMENTARY ACTIVITIES | Other facilities in immediate area are zoo, Hall of Science, children's farm, athletic fields. | Excellent. Other recreational activities available adjacent and near to site. |
| DEMAND FOR EXISTING FACILITIES | No facility presently existing on site. | Excellent. No conflicting requirements to prevent development. |

**Site 3B** At Flushing Meadows Park, south of Terrace On The Park and the Children's Farm. Natural area. 4.27 acres bordering on 111 St. and Corona Avenue.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Grand Central Parkway, Long Island Expressway and Van Wyck Expressway are close to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT Flushing line stops approximately 15 blocks from site. | Poor. Too far to walk from subway. |
| Bus | Q 23 stops approx. two blocks from site. Q 48 stops approx. 15 blocks from site. B 58 stops within one block from site. | Fair. Two bus routes pass nearby but do not serve a large area of the city. |
| DRAW | Regional park and recreation area. | Excellent. Has wide appeal and attracts people from all boroughs. |
| AREA CHARACTER | Regional park. Neutral character. | Excellent. A visually open and accessible area. Not tied to any community group. |
| SIZE/SHAPE | 4.27 acres, irregular. | Very good. Very good size and configuration. |
| TOPOGRAPHY | Slightly sloping and rolling terrain rising approximately 8' in elevation from east to west. | Very good. Favorable topographic conditions. |
| CONDITION | Open natural area. Some existing small trees. | Very good. No destruction of existing facility necessary. |
| SANITARY FACILITIES | Existing (nonoperational) comfort station in parking area approx. 480' from site. Existing comfort station in zoo area approx. 2,500' from site. | Good. Sanitary facilities available nearby. |
| PARKING | Public parking available adjacent to site. No intervening vehicular traffic. | Excellent. Parking available nearby. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing facilities. | Excellent. Compatible with existing children's recreational activities. |
| COMPLEMENTARY ACTIVITIES | Other facilities in immediate area are zoo, Hall of Science, children's farm, athletic fields. | Excellent. Other recreational activities available adjacent and near to site. |

| | | |
|---|---|---|
| DEMAND FOR EXISTING FACILITIES | No facility presently existing on site. | Excellent. No conflicting requirements to prevent development. |

*(N.B. Previously a 3.5 acre area between site 3B and the Children's Farm was suggested as a potential site. It was considered unsuitable because of the need to maintain a buffer space between the Children's Farm and the proposed playground to absorb overflow from these facilities as well as the Zoo.)*

Site 3C At southwest corner of intersection of Long Island Expressway and Grand Central Parkway. Existing neighborhood playground, two acres.

| | | |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Grand Central Parkway, Long Island Expressway and Van Wyck Expressway are close to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT Flushing line stops approx. 20 blocks from site. | Poor. Too far to walk, and also requires cross-over of L.I. Expressway on pedestrian bridge. |
| Bus | Q 23 stops approx. 2 blocks from site. Q 48 stops approx. 20 blocks from site. | Poor. Local bus routes serving small, low density areas. |
| DRAW | Neighborhood park. | Poor. Has no regional draw. Attracts local residents only |
| AREA CHARACTER | Middle class, evenly divided between older families and families with younger children. | Poor. In a residential neighborhood. Community would strongly oppose traffic this facility would introduce. |
| SIZE/SHAPE | 2.0 acres, rectangular, long and narrow. | Fair. Adequate size for redevelopment. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground in fair condition. Facilities available are soft ball diamond, paddle ball courts, slides, seesaws, jungle gym and swings. | Fair. Equipment is in fair condition and usable, can be readily removed or relocated. No serious obstacles to conversion. |
| SANITARY FACILITIES | Existing comfort station on site. | Excellent. Sanitary facilities available on site. |
| PARKING | Limited street parking only. | Poor. Insufficient and inadequate parking facilities. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Residential area to the west, Grand Central Parkway to the east and north. | Poor. Noise and fumes from adjacent arterial highways are objectionable. |

| | | |
|---|---|---|
| COMPLEMENTARY ACTIVITIES | None easily accessible in immediate area. Flushing Meadows Lake and athletic fields across Grand Central Parkway, accessible by way of a pedestrian bridge. | Poor. No easily accessible complementary activities. |
| DEMAND FOR EXISTING FACILITIES | Considerable demand for playground by local residents. High level of usage afternoons and weekends. | Poor. Existing facility required for use by local residents. |

**Site 3D** Near southwest corner of intersection of Long Island Expressway and Grand Central Parkway. Directly south of Site C. Open natural area, two acres.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Grand Central Parkway, Long Island Expressway and Van Wyck Expressway are close to site. | Excellent. Readily accessible from arterial highways. |
| Subway | IRT Flushing line stops approx. 20 blocks from site. | Poor. Too far to walk, and also requires crossover of Long Island Expressway on pedestrian bridge. |
| Bus | Q 23 stops approx. 2 blocks from site. Q 48 stops approx. 20 blocks from site. | Poor. Local bus routes serving small, low density areas. |
| DRAW | Open, natural area. No current use. Adjacent to neighborhood playground. | Poor. Not presently used. Would not have wide draw when developed. |
| AREA CHARACTER | Middle class, evenly divided between older families and families with younger children. | Poor. In a residential neighborhood. Community would strongly oppose traffic the facility would introduce. |
| SIZE/SHAPE | 2 acres, rectangular. | Good. Adequate size and shape. Limited by existing leaching field on part of area, adjacent to existing playground. |
| TOPOGRAPHY | Flat, natural area. | Very good. No topographic constraints. |
| CONDITION | Open, natural area with small trees. Leaching field covering part of the area. | Fair. Leaching field restricts use of the area. |
| SANITARY FACILITIES | Comfort stations available at Site C, approx. 250' away. No intervening vehicular traffic. | Good. Sanitary facilities available nearby. |
| PARKING | Limited street parking only. | Poor. Insufficient and inadequate parking facilities. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Residential buildings to the west, Grand Central Parkway to the east. Existing neighborhood playground to the north. | Fair. Compatible with existing playground, but noise and fumes from arterial highway are objectionable. |
| COMPLEMENTARY ACTIVITIES | Existing neighborhood playground adjacent to site. Flushing Meadows Lake and athletic field across Grand Central Parkway accessible by way of pedestrian bridge. | Poor. Main complementary activities not easily accessible. |
| DEMAND FOR EXISTING FACILITIES | Open natural area, not presently used. | Very good. No conflicting requirements (except leaching field) to prevent development. |

**Site 3E** At 64th Avenue, between Grand Central Parkway and Meadow Lake. Existing playground, .75 acre.

| | | |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island |
| ACCESSIBILITY | | |
| Automobile | Readily accessible from Grand Central Parkway and near the Long Island Expressway and Van Wyck Expressway. | Very good. Accessible from arterial highways, but access from L.I. Expressway and Van Wyck Expressway complicated. |
| Subway | None. | Poor. No subway transportation available. |
| Bus | Q 23 stops approx 3 blocks from site. | Poor. Serves small, low density area and requires Grand Central Parkway. crossover. |
| DRAW | Regional park and recreation area, but draws mostly local residents. | Good. Would have an excellent draw, but it is limited by the difficult pedestrian and automobile access. |
| AREA CHARACTER | Regional park. Neutral character. | Excellent. Not tied to any community group. |
| SIZE/SHAPE | .75 acre, rectangular. | Fair. Small but adequate. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground, in fair condition. Facilities available are softball diamond, paddle ball courts, slides, seesaws, jungle gym and swings. | Poor. Would result in the elimination of an existing, operational facility. |
| SANITARY FACILITIES | Existing comfort station on site. | Excellent. Sanitary facilities available on site. |
| PARKING | No parking available on site. Parking available approx. 1,650' from site. | Poor. Parking is too far from site. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing park facilities. | Very good. Compatible with existing recreational facilities. Noise and fumes from adjacent arterial highway are objectionable. |
| COMPLEMENTARY ACTIVITIES | Other facilities in immediate area are athletic fields, Meadow Lake and bicycle path. | Very good. Other recreational facilities available adjacent to site. |
| DEMAND FOR EXISTING FACILITIES | Limited demand because of its proximity to Site C and its physical separation from neighborhood by Grand Central Parkway. | Good. Facility is not intensively used. |

**Site 3F** At 136th Street, between Van Wyck Expressway and Meadow Lake. Existing playground, 1.14 acre.

| | | |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Readily accessible from Van Wyck Expressway, and near the Grand Central Parkway. | Very good. |
| Subway | None. | Poor. Inaccessible by subway. |

| | | |
|---|---|---|
| Bus | None. | Poor. Inaccessible by bus. |
| DRAW | Regional park and recreation area, but draws mostly local residents. | Good. Would have an excellent draw, but is limited by the difficult pedestrian and automobile access. |
| AREA CHARACTER | Regional park. Neutral character. | Excellent. Not tied to any community group. |
| SIZE/SHAPE | 1.14 acre, irregular. | Good. Adequate size and shape. |
| TOPOGRAPHY | Flat, paved. | Good. No topographic constraints. |
| CONDITION | Existing playground, in fair condition, but declining. Facilities available are picnic tables, slides, swings, jungle gym, basketball courts, and spray pool. | Good. Would result in elimination of existing declining facility which is in need of repair and rehabilitation. |
| SANITARY FACILITIES | Existing comfort station on site. | Excellent. Sanitary facilities available on site. |
| PARKING | Limited parking available on shoulder of paved road adjacent to site. Parking lot available approx. 2,100' from site. | Poor. Shoulder parking inadequate. Parking lot is too far from site. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Functionally similar to existing park facilities. | Very good. Compatible with existing recreational facilities. Noise and fumes from adjacent arterial highway are objectionable. |
| COMPLEMENTARY ACTIVITIES | Other facilities in immediate area are model airplane flying, Meadow Lake, athletic fields. | Very good. Other recreational activities available adjacent and near to site. |
| DEMAND FOR EXISTING FACILITIES | Existing facility is crowded on weekends, but is lightly used during the week. | Fair. Possible conflict with weekend users. |

Site 3G At 73rd Terrace, between Park Drive East and Van Wyck Expressway. Existing playground, one acre.

| | DESCRIPTION | EVALUATION |
|---|---|---|
| LOCATION | Near geographic center of Brooklyn, Queens, Manhattan and the Bronx. | Very good. Centrally located, except in relation to Staten Island. |
| ACCESSIBILITY | | |
| Automobile | Readily accessible from Van Wyck Expressway, and near the Grand Central Parkway. | Very good. |
| Subway | None. | Poor. Inaccessible by subway. |
| Bus | Q 44 and Q 44VP stop near site. | Good. Accessible by two bus lines. |
| DRAW | Neighborhood park. | Poor. Does not have a wide draw. |
| AREA CHARACTER | Upper middle class, evenly divided between older families and families with younger children. | Poor. In a residential neighborhood. Community would strongly oppose traffic this facility would introduce. |
| SIZE/SHAPE | 1 acre, long and narrow, rectangular. Consists of two parts, .67 and .39 acre respectively. | Poor. Each part alone is inadequate. Combining both parts not practical. Shape is restrictive. |

| | | |
|---|---|---|
| TOPOGRAPHY | Each part is flat and paved, but they are separated by path at higher level. Large, depressed wading pool. | Poor. May require change of existing grade to combine the two parts. |
| CONDITION | Existing playground, in good condition. | Poor. would result elimination of an exis operational facility. |
| SANITARY FACILITIES | Existing comfort station on site. | Excellent. Sanitary facilities on site. |
| PARKING | Limited street parking only. | Poor. Insufficient and inadequate parking facilities. |
| COMPATIBILITY OF PROPOSED FACILITY WITH SURROUNDING AREA | Low density residential area to the east, Van Wyck Expressway to the west | Poor. Noise and fumes from adjacent arterial highway are objectionable. |
| COMPLEMENTARY ACTIVITIES | None easily accessible. | Poor. No easily accessible complementary activities. |
| DEMAND FOR EXISTING FACILITIES | Existing facility is inadequately used. | Good. Minimal demand for existing facility. |

**SUMMARY COMPARISON OF SITES**

| Criteria | 1A Bronx Park | | 1B Bronx Park | | 2A Prospect Pk. | | 2B Prospect Pk. | | 2C Prospect Pk. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts |
| 1. Location | Poor | 0 | Poor | 0 | Fair | 15 | Fair | 15 | Fair | 15 |
| 2. Accessibility | | | | | | | | | | |
| a. Auto | Very Good | 75 | Very Good | 75 | Fair | 25 | Fair | 25 | Fair | 25 |
| b. Subway | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 |
| c. Bus | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 |
| 3. Draw | Good | 30 | Good | 30 | Excellent | 60 | Excellent | 60 | Excellent | 60 |
| 4. Area Character | Fair | 15 | Very Good | 45 | Poor | 0 | Very Good | 45 | Poor | 0 |
| 5. Size/Shape | Poor | 0 | Good | 40 | Poor | 0 | Very Good | 60 | Poor | 0 |
| 6. Topography | Good | 40 | Good | 40 | Good | 40 | Excellent | 80 | Good | 40 |
| 7. Condition | Poor | 0 | Fair | 5 | Poor | 0 | Very Good | 15 | Poor | 0 |
| 8. Sanitary Facilities | Very good | 15 | Very Good | 15 | Very Good | 15 | Fair | 5 | Fair | 5 |
| 9. Parking | Very Good | 75 | Very Good | 75 | Fair | 25 | Fair | 25 | Fair | 25 |
| 10. Compatibility of Prop. Fac. with Surrounding Area | Very Good | 60 | Very Good | 60 | Fair | 20 | Fair | 20 | Fair | 20 |
| 11. Complementary Facilities | Very Good | 75 | Very Good | 75 | Good | 50 | Good | 50 | Good | 50 |
| 12. Demand for Existing Facilities | Poor | 0 | Very Good | 30 | Good | 20 | Very Good | 30 | Poor | 0 |
| TOTAL POINTS | | 475 | | 580 | | 360 | | 520 | | 330 |

| 3A Flushing Meadows | | 3B Flushing Meadows | | 3C Flushing Meadows | | 3D Flushing Meadows | | 3E Flushing Meadows | | 3F Flushing Meadows | | 3G Flushing Meadows | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts | Evaluation | Pts |
| Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 | Very Good | 45 |
| Excellent | 100 | Excellent | 100 | Excellent | 100 | Excellent | 100 | Very Good | 75 | Very Good | 75 | Very Good | 75 |
| Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 |
| Fair | 15 | Fair | 15 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 | Good | 30 |
| Excellent | 60 | Excellent | 60 | Excellent | 60 | Poor | 0 | Good | 30 | Good | 30 | Poor | 0 |
| Excellent | 60 | Excellent | 60 | Poor | 0 | Poor | 0 | Excellent | 60 | Excellent | 60 | Poor | 0 |
| Very Good | 60 | Very Good | 60 | Fair | 20 | Good | 40 | Fair | 20 | Good | 40 | Poor | 0 |
| Excellent | 80 | Very Good | 60 | Good | 40 | Very Good | 60 | Good | 40 | Good | 40 | Poor | 0 |
| Very Good | 15 | Very Good | 15 | Fair | 5 | Fair | 5 | Poor | 0 | Good | 10 | Poor | 0 |
| Fair | 5 | Good | 10 | Excellent | 20 | Good | 10 | Excellent | 20 | Excellent | 20 | Excellent | 20 |
| Fair | 25 | Excellent | 100 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 | Poor | 0 |
| Excellent | 80 | Excellent | 80 | Poor | 0 | Fair | 20 | Very Good | 60 | Very Good | 60 | Poor | 0 |
| Excellent | 100 | Excellent | 100 | Poor | 0 | Poor | 0 | Very Good | 75 | Very Good | 75 | Poor | 0 |
| Excellent | 40 | Excellent | 40 | Poor | 0 | Very Good | 30 | Good | 20 | Fair | 10 | Good | 20 |
| | 685 | | 745 | | 290 | | 310 | | 445 | | 465 | | 190 |

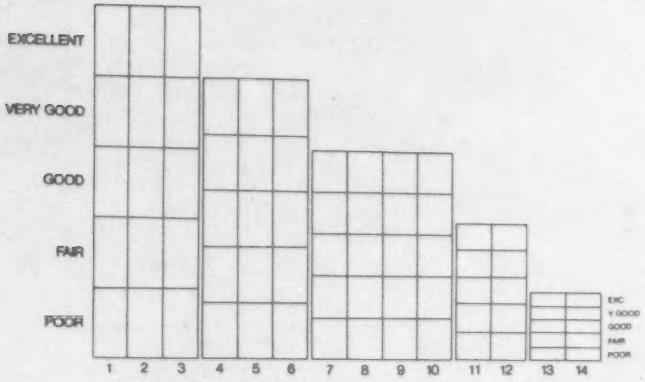


78

79

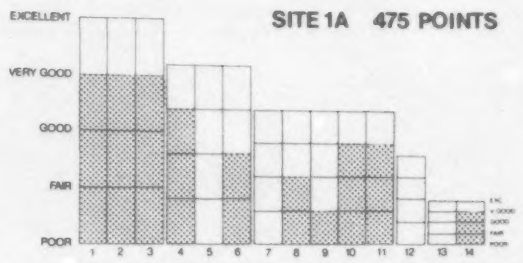
## GRAPHIC COMPARISON OF SITES

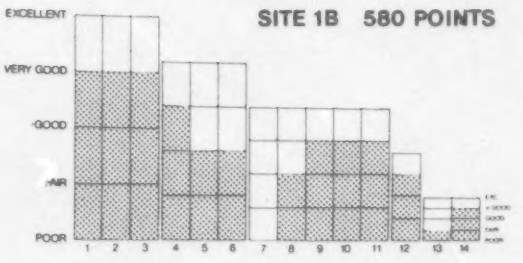
Criteria used in evaluating the sites are shown in descending order of importance.

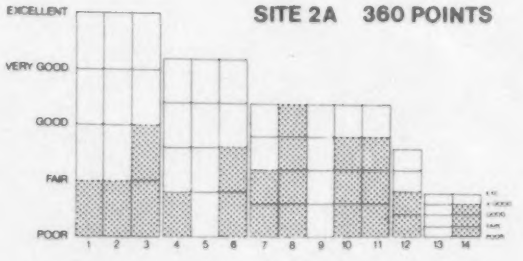


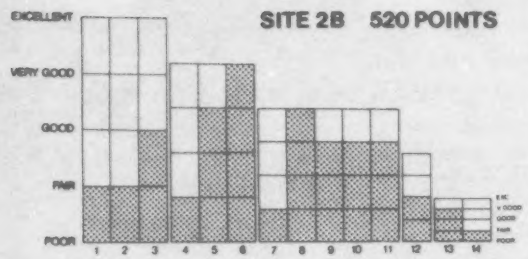

1. Accessibility by Automobile
2. Parking
3. Complementary Facilities
4. Compatibility of Proposed Facility with Surrounding Area
5. Size/Shape
6. Topography
7. Location
8. Draw
9. Area Character
10. Accessibility by Subway
11. Accessibility by Bus
12. Demand for Existing Facilities
13. Condition
14. Sanitary Facilities

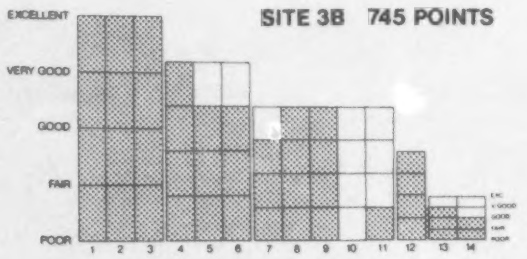
The shaded portion of each graph indicates the evaluation of that site. Site 3B ranked highest.

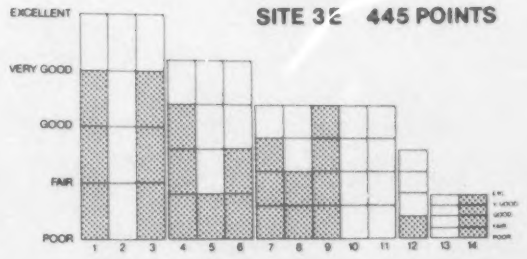


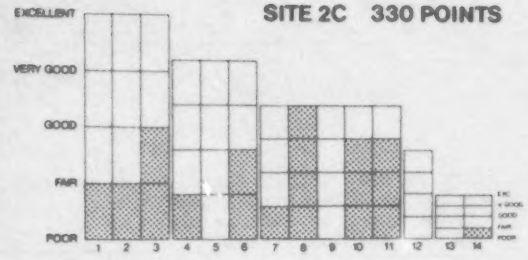



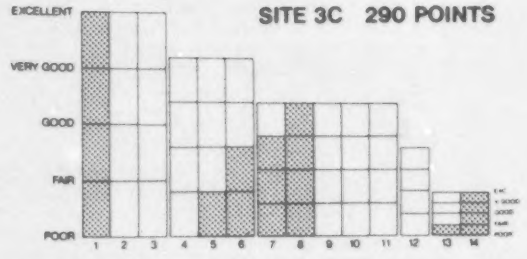



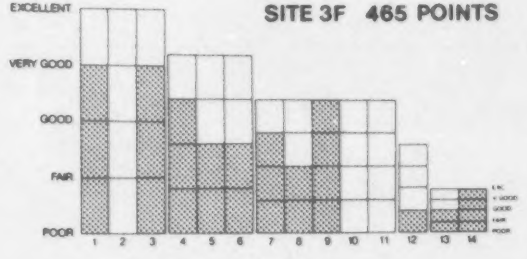

SITE 2B 520 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3B 745 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3E 445 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 2C 330 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3C 290 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3F 465 POINTS
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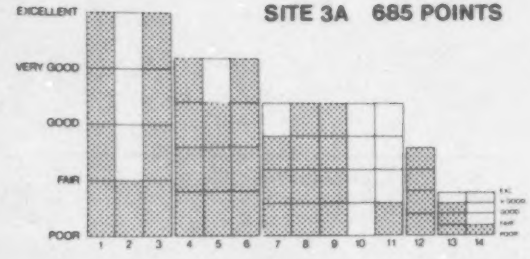
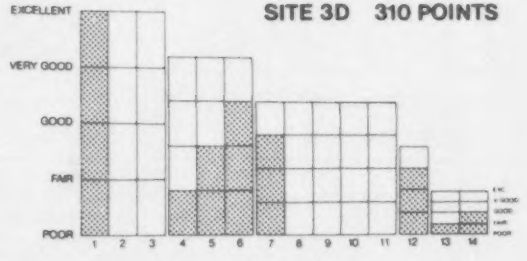
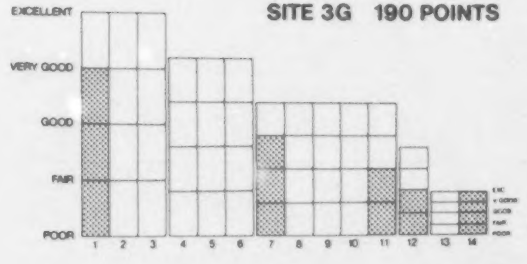
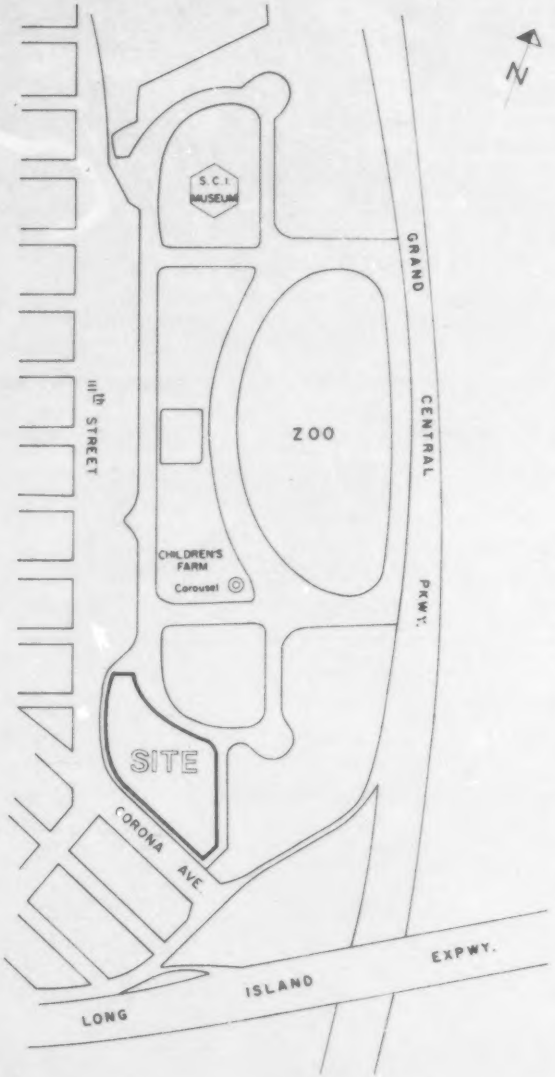
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3A 685 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3D 310 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14


SITE 3G 190 POINTS
EXCELLENT
VERY GOOD
GOOD
FAIR
POOR
1 2 3 4 5 6 7 8 9 10 11 12 13 14

## FLUSHING MEADOW PARK




CITY OF NEW YORK
PRESIDENT OF THE BOROUGH OF QUEENS
BOROUGH HALL
KEW GARDENS, N.Y. 11424

DONALD R. MANES
PRESIDENT

OFFICE OF THE PRESIDENT

Community Board No. 4

Steven R. Trimboli
Chairman

Claire Shulman
Director
Community Boards of Queens

December 1st, 1975

Mr. Saul Nimowitz
City Planning Commission
2 Lafayette Street
New York, N.Y. 10007
2nd Floor

Dear Sir:

Community Planning Board #4 unanimously approves of the proposed playground to be constructed at 111th Street and Corona Avenue in Flushing Meadow Park, for handicapped as well as able-bodied children, as presented to us in its initial stages.

Any assistance that the Planning Board can provide will be most happily extended.

Thank you again and we know that it will be a success.

Very truly yours,

Steven R Trimboli

Steven R. Trimboli
Chairman

cc: Commissioner Joseph Davidson - Dept. of Recreation
Mr. Paul Bonfilio - City Planning Commission
Mr. Anthony Quandamatteo - Parks Committee Chairman
Mrs. Claire Shulman - Director
Ms. Mary Powell - Coordinator

SRT:mk

## SITE SELECTED FOR PLAYGROUND

Partial view of site selected for playground in Flushing Meadow Park. (Site 3B)

## APPENDIX A

## PUBLIC AND PRIVATE ORGANIZATIONS CONSULTED

1. American Diabetes Association
   New York, N.Y.
2. American Heart Association
   New York, N.Y.
3. The Arthritis Foundation
   New York, N.Y.
4. Association for the Help of Retarded Children
   New York, N. Y.
5. Association for the Advancement of Blind and Retarded
   Jamaica, N.Y.
6. Beaumont School and Camp
   Liberty, N.Y.
7. Center for Deafness Research
   New York University
   New York, N.Y.
8. City of New York Board of Education
   Bureau for the Education of the Physically Handicapped
   New York, N.Y.
9. City of New York, Department of Health
   Bureau for Handicapped Children
   New York, N.Y.
10. City of New York
    Department of Mental Health and Mental Retardation Services
    New York, N.Y.
11. Congress of People with Disabilities
    New York, N.Y.
12. Downstate Medical Center
    Brooklyn, N.Y.
13. Epilepsy Foundation of America
    New York, N.Y.
14. The Hospital for Special Surgery
    New York, N.Y.
15. Lexington School for the Deaf
    Jackson Heights, N.Y.
16. Muscular Dystrophy Association
    New York, N.Y.
17. National Hemophilia Foundation
    Metropolitan Chapter
    New York, N.Y.
18. New York Diabetes Association
    New York, N.Y.
19. New York Institute for Child Development
    New York, N.Y.
20. New York Philanthropic League
    New York, N.Y.
21. New York Society for Physical Medicine
    New York, N.Y.
22. New York State Association for Brain Injured Children
    New York, N.Y.
23. New York State Department of Mental Hygiene
    Manhattan Development Center
    New York, N.Y.
24. New York University Medical Center
    Institute of Rehabilitation Medicine
    New York, N.Y.
25. Queens New York Association for Brain Injured Children
    Bayside, Queens, N.Y.
26. Roberto Clemente State Park
    Program for the Handicapped
    Bronx, N.Y.
27. Rockland County Center for the Physically Handicapped, Inc.
    New City, N.Y.
28. Rugby E. Flatbush "Y"
    Program for the Mentally Retarded
    Brooklyn, N.Y.
29. Spina Bifida Association of Greater New York
    Brooklyn, N.Y.
30. United Cerebral Palsy of Nassau County
    St. James, N.Y.
31. United Cerebral Palsy of New York City
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32. United Cerebral Palsy of Queens
    Jamaica, N.Y.

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39. Schwartz, Susan; Parent
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Brooklyn, N.Y.

## APPENDIX C

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APPENDIX C

OVERVIEW SURVEY

# CITY PLANNING COMMISSION

2 LAFAYETTE STREET, NEW YORK, N.Y. 10007

April 11, 1975

Dear

Re: Demonstration Playground for Integrated Play Amongst Handicapped and Able-Bodied Children

The Mayor has approved funds for the first public park that will be designed for integrating handicapped and able-bodied children. Since this will be the first public facility of its kind it will serve as a demonstrative working model for future park designs.

In order to maximize the most creative approach for this park, we are anticipating to run a design competition. Currently, we are doing some basic research to set up program guidelines and performance standards for the competition. Our schedule calls for completing our research by June 1. A site selection process for the actual park location is being done concurrently.

Listed below are items that we would like to get your reaction to.

USER GROUPS

The user groups would consist of non-institutionalized: blind, deaf, cardiacs, amputees, cerebral palsy, muscular dystrophy, rheumatoid arthritics, diabetics, brain-injured, mentally retarded, as well as able-bodied children. Emotionally disturbed would not be included.

For design purposes, handicaps would be classified by mobility dysfunction into groups consisting of: wheel-chair bound, crutches, braces, walkers, visual impairment, hearing impairment, mental impairment and generally lower physical tolerant groups.

ASSUMPTIONS

1. Special physical adaptation would be necessary for most of the mobility dysfunctions.

2. Less active play would be required for the low tolerance groups such as cardiacs, and diabetics. Shading would be emphasized to prevent dehydration from over exposure.

3. Special monitoring and possibly enclosure would be necessary for the mentally impaired.

CHAIRMAN: JOHN V. LINDSAY / VICE-CHAIRMAN: MARTIN GALLENT
COMMISSIONERS: GERALD B. SOLOMAN / ALEXANDER COOPER / GORDON J. DAVIS / SYLVIA DEUTSCH / CHESTER RAPKIN
EXECUTIVE DIRECTOR: CHARLES M. SMITH JR.



ACTIVITIES

Individual play activities would consist of: water play, sand play, rocking (movement), climbing, and perhaps sound (especially for the blind). Group activities would depend on the site size, but might consist of basketball and track.

Due to the fact that this playground will be a first of its kind, many items are still unknown. In light of this, we would like to have your specific reaction to the following?

A. USER GROUPS

1. Do you agree that the user groups mentioned will use the park?

2. Would you add any group?

3. Would you eliminate any groups?

4. Which handicapped groups do you feel are the largest in N.Y.C.? (Rank them from largest to smallest).

5. Which mobility dysfunction groups do you feel are the largest in N.Y.C.? (Rank them if you could).

B. ASSUMPTIONS

1. Do you agree with the three assumptions?

2. What others would you add?

C. ACTIVITIES

1. Do you agree with the list of activities?

2. Would you add any?

3. Would you eliminate any?

We would appreciate having your reply by April 28, so that we may include your thinking in our program research. If you would like to discuss this further with me, I can be reached at 566-4956/7, 0105.

Sincerely,

David Mayerfeld
Urban Designer
Special Projects for the Handicapped

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APPENDIX D

## Association for the Advancement of Blind and Retarded, Inc. (AABR)

[Formerly – ASSOCIATION for the ADVANCEMENT of BLIND CHILDREN, Inc. (AABC)]

184-80 HILLSIDE AVENUE JAMAICA, N.Y. 11432
(212) 523-2222

AABR is a tax exempt association – contributions and bequests – tax deductible.

DIRECT SERVICES to the BLIND and SEVERELY RETARDED

RECEIVED
April 30, 1975

April 21, 1975

Mr. David Mayerfeld, Urban Designer
Special Projects for the Handicapped
City Planning Commission
2 Lafayette Street
New York, N.Y. 10007

Dear Mr. Mayerfeld:

Mrs. Rosen asked me to respond to your inquiry concerning the design of a public park designed for integrating handicapped and able-bodied children.

A. USER GROUPS

1. The groups listed are most likely to use the park if its location makes it accessible.

2. & 3. I would neither add nor delete any groups.

4. I would rank the incidence as follows: brain-injured; mentally retarded; cerebral palsied; blind; deaf; other physically handicapped.

5. I would rank the incidence of mobility dysfunctions as follows:
   1. low physical tolerance;
   2. visual impairment;
   3. hearing impairment;
   4. crutches, braces and walkers;
   5. wheel-chair bound.

These estimates of incidence are highly impressionistic. The Department of Health might have hard data in this area.

B. ASSUMPTIONS

1. I agree with the first two assumptions. However, the third assumption could be modified. Within this sort of facility, a special "enclosure"

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MARTHA ROSEN, Executive Director
MAX FISHER, ESQ., Assoc. Exec. Dir. & Legal Counsel
DAY SCHOOL, 182-10 Highland Ave., Jamaica, N.Y. 11432
COMMUNITY RESIDENCE, 178-06 119th Ave., St. Albans, N.Y. 11434
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Association for the Advancement of Blind and Retarded, Inc. (AABR)

[Formerly – ASSOCIATION for the ADVANCEMENT of BLIND CHILDREN, Inc. (AABC)]

184-80 HILLSIDE AVENUE JAMAICA, N.Y. 11432
(212) 523-2222

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DIRECT SERVICES to the BLIND and SEVERELY RETARDED

Mr. David Mayerfeld,
City Planning Commission -2- April 21, 1975

limited to any one group appears to be contradictory to the aim of integration. Special monitoring should be provided for all users of the park who might need it.

2. I would add the following:

   a) Facilities should be designed and publicized in a way which would encourage maximum physical integration and social interaction of handicapped and non-handicapped children.

   b) The facility should be designed and publicized in a way that avoids stigmatizing handicapped children.

C. ACTIVITIES

1. The basic list of activities is a good one.

2. I would suggest more areas encouraging group (large and small) activities and multi-sensory exploration (such as the Brooklyn Botanic Gardens "Fragrance Garden").

3. I would not eliminate any of the activities listed.

It is encouraging to know that New York City is planning such an exciting and innovative facility. Please contact AABR if there is anything else we can do to assist in the realization of this project.

Best Wishes for success.

Very truly yours,

Philip Reiss

PR:hb

Philip Reiss, Ph.D.
Educ'l. Cons.

MARTHA ROSEN, Executive Director
MAX FISHER, ESQ., Assoc. Exec. Dir. & Legal Counsel
DAY SCHOOL, 182-10 Highland Ave., Jamaica, N.Y. 11432
COMMUNITY RESIDENCE, 178-06 119th Ave., St. Albans, N.Y. 11434
COMMUNITY RESIDENCE, 178-22 Linden Boulevard, St. Albans, N.Y. 11434

## APPENDIX E

April 15, 1975

Mr. David Mayerfeld
Urban Designer
Special Projects for the Handicapped

Dear Mr. Mayerfeld:

This is in response to your letter of April 11. Let me begin by saying the I very much appreciate the opportunity to present my thoughts on this very speical park project. I apologize that I have not kept strictly to the format of your letter. Also, that not being a social service professional, I do not have the information to respond knowledgeably to some of the questions.

I feel that I can best reply from the viewpoint of the parents of a particular handicapped child. My daughter is 7 years old. She was born with the congenital defect, Spina Bifieda, or open spine. As is quite common to children with this defect, my daughter ambulates with long leg braces and crutches, but needs a wheelchair if any distance is involved. Because of neurological impairment she cannot be toilet-trained,and so must be diapered, as is also common with this defect. My daughter is a second grade pupil in a Health Unit for the physically handicapped at a Queens public school.

Reflecting on my daughter's needs and preferences, I would make the following observations and suggestions for the proposed park and playground project:

Integration with and equal acceptance with the able-bodied is the undeniable goal in all areas of society. Insofar as safety and most complete utilization of facilities by the handicapped are concerned, however, I wonder if it wouldn't be preferable to solve some activities for primary use by all the handicapped groups, not just the "mentally impaired."

From the safety standpoint, I believe that matting will be an essential requirement. Providing shaded areas is an excellent idea. Hopefully there will be grassy areas for resting and perhaps picnic facilities conveniently located. Water fountains that are easy to manipulate and at a level for use by the wheelchair confined are a particular need.



Restroom facilities would also be best designed with special needs in mind. Guard rails would be important, as would be sinks designed to accommodate wheelchairs. Moreover, for those who require it, tables screened for privacy in diaper changing would be a blessing!

It is hoped that the park area will be readily accessible to those who come as families in private cars, as well as to groups in school buses, or those who are able to use public transportation, those being a relatively limited number.

As to the activities to be included in addition to those mentioned in your letter, swings would seem basic, but with back andside supports, with seats wide enough to accommodate larger children in braces , and low enough for children to get into with minimal assistance.

Horseshoes and shuffleboard could be group game possibilities. Play houses, round-abouts and "monkey-bars" are fun and usable. A stage area for puppet shows and other childrens entertainments could bring together the able- bodied and handicapped. So too could a zoo farm , but unlike those at Central Park, Flushing Meadow and Bronx Zoo, there would be ramps, paved walk- walks and sufficient room for wheelchairs to manuever.

I do hope that some of my observations are pertinent to your research. I appreciate having had the opportunity to offer them. Thank you very much.

Sincerely,

Joan A. Shepard

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APPENDIX F

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MDA

MUSCULAR DYSTROPHY ASSOCIATION, INC.

Please Reply To: 810 MADISON AVENUE, ROOM 904, NEW YORK, N. Y. 10021, (212) 734-7710

June 17, 1975

David Mayerfeld
Urban Designer
Special Projects for the Handicapped
City Planning Commission
2 Lafayette Street
New York, New York 10007

Dear Mr. Mayerfeld:

Thank you for asking our advice for the project you are involved in concerning an Integrated-Handicapped Playground. Our Manhattan Chapter Patient and Community Service Committee was pleased that the city is thinking in terms of designing such playgrounds for they feel such playgrounds are desparately needed. Two of the Committee members work with very young handicapped children in the public school system. One is a physical therapist and the other is a teacher. They readily assisted me in answering your questionaires and are willing to help in any way they can if further information is required.

We thought it might be interesting for you to know the response we received when we asked our little children twelve years of age and under where they would like MDA to take them for their summer outings. They said they wanted to go to Jungle Habitat, on a boat ride, to a picnic out-of-doors, to the park, the botanical gardens, the beach, a baseball park, to an auto race, a trip to Playland in Rye, N.Y., to a puppet show and to a music concert. We have found that they enjoy things that move rapidly, such as airplanes. They identify with powerful cartoon figures such as superman. Their hero is Evil Knivel. They love outer space because they dream that they would be able to walk if they were on the moon.

Attached are our answers to your questionaires. Please feel free to telephone me should you have any further questions.

Sincerely yours,

(Miss) Shirley Johnson
Patient Service Coordinator

MDA sponsors basic and applied research into neuromuscular disorders, including the muscular dystrophies, the myopathies, amyotrophic lateral sclerosis (ALS) and other spinal muscular atrophies, and provides services to those afflicted by these diseases.

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QUESTIONAIRE #1

A. 1. Yes, especially if the park is located so that there is no transportation problems.

2. Unable to answer.

3. Unable to answer.

4. Unable to answer.

5. Unable to answer.

B 1. Yes.

2. Ambulatory MD children may fall frequently. After they have fallen, they find it difficult to get up. Sharp objects and concrete floors should be avoided.

3. Wheelchairs will tip if they are not properly pushed up sharp inclines, therfore, inclines should be long with slow elevation. Grounds should should be fairly smooth so that one of the front wheels won't drop into a crevice tipping the chair.

C 1. Yes.

2. We would like to have tunnels for the children to crawl through, steps for the children to crawl up and down, pull-up bars at wheelchair level, swings with a special harness to hold the children upright, low basketball loop, a maze through which the children could crawl or walk.

3. No.

QUESTIONAIRE #2.

1. Enclosed literature describes the manifestations of the diseases MDA covers and which affects children.

2. Unless born very involved so that they are never able to walk, most MD children walk till aroun 6 years of age at which time they may go into braces to keep from falling. Freqently at the age of 10, they are confined to a wheelchair. Generally speaking, they are unable to grasp too well and many may have limited arm movement. They can usually walk unassisted but have difficulty in getting up.

3. We feel that any type of play involving the senses is good. We like them to develop their visual perception, their hearing and especially their sense of touch. They love to feel animals, leave

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flowers, etc. They have a problem in that everything is always running away from them or falling out of their hands. They also enjoy the sense of smell. They love smelling the trees, flowers, and the various odors of mother nature. They love to watch things grow.

4. We have found that our children love to play ball, they love relating to animals, playing in sandboxes, sitting on little plastic animals or on little chairs. They also love water sprinklers and showers.

5. We would like to see little tables that a wheelchair could fit under and have checker boards and games painted right onto the tops so the children could play games. We think little picnic tables for them to eat at would be nice. Also chairs for adults should be located by the tables and chairs for the children. It is sometimes difficult to lift the children out of sandboxes; therefore, if the sandbox could be raised so the wheelchair could fit under it it would solve many problems Another suggestion may be to have some type of enclosure so the children could be held upright in the sandbox while he plays. This is especially important for the "floppy" child. We also thought that children would love a pendulum type of object to watch and play with. Perhaps the pendulum could draw pictures on paper or in the sand. We would like to see a blackboard-type object for the children to write and draw on. All little children love little houses that they can crawl through and explore.

6. Most of our children can crawl and walk without assistance but need assistance to get up. However, if born with a condition with a great deal of involvement they need assistance to do everything for their muscles are totally weak. With our stronger children, they should be given assistance only when they ask for it. Most people are able to assist MD children. No special training is required in most cases.

7. Our children are only physically weak. In most other ways, they enjoy good health and a normal life.

8. Our children have no special emotional problems. They do find life frustrating because they are dependent and unable to do things for themselves. They relate to normal children well except they are unable to defend themselves if with aggressive children.

9. Surfaces should be soft so that if the child falls he won't hurt himself Objects with sharp corners or that could hurt a falling child should be avoided. Water fountains should be low for children in wheelchairs.

10. Bathrooms should have no steps, wide doors, low sinks and toilets of varying heights. Commodes on wheels that can be pushed over the toilet is very useful. There should be diaper room with a table suitable for changing a child. Some of our bigger children need two to take to them to the bathroom.

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UCP united cerebral palsy of new york city, inc.

122 east 23rd street/new york, n.y. 10010 / (212) 677-7400

April 17, 1975

Mr. David Mayerfeld
Urban Designer
Special Projects for the Handicapped
CITY PLANNING COMMISSION
2 Lafayette Street
New York, N.Y. 10007

Dear David:

Thanks for your recent letter about the playground for handicapped children. My reactions are as follows:

**User groups**

I agree that the user groups mentioned will probably make use of the park. I would add spina bifida (meningo-myelocele) as another group in the mobility dysfunction category. I would rank the groups by size as follows: Cerebral Palsy, spina bifida, rheumatoid arthritis, muscular dystrophy, and amputees due to birth defects. My grouping order may not be entirely correct, it is just an educated guess.

**Assumptions**

Your listed assumptions appear to be correct in my judgement. I would add another: Playground surfaces must be smooth enough to avoid skin breakdown of those children who will be crawling or scooting on their buttocks.

**Activities**

Your list seemed good but incomplete. I would add the following activity structures.

a) Swings of assorted sizes, with back & arm supports.



**Activities**

b) Sliding surface with ramp access that has hand rails.

c) Playhouse structure with several play levels, one of which should be at the proper height for easy transfer from wheel chairs. The playhouse levels should be connected to each other by climbable structures.

d) For group activities - volleyball & basketball areas could be interchangeable. Basketball hoops and volleyball nets need to have adjustable height levels.

I'd like to congratulate you on the logical and intelligent procedures you are following in the planning of this project. Communicating by letter seems more efficient than most long-winded meetings, and I admire the way you are pulling together suggestions from different sources. It is a pleasure working with you.

Sincerely,

Marion Marx

Marion Marx, P.T.
Physical Therapist
United Cerebral Palsy
of New York City, Inc.



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Robert E. Selsam, Director, Transportation Division
Philip B. Wallick, Director of Operations

# *A Playground for all Children*

## USER GROUPS AND SITE SELECTION

was conceived and developed within the Special Projects
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David Mayerfeld, Research Coordinator
Mona Levine, Project Planner

**Site Analysis:** Eli Rabineau, Director of Public Facilities
Sam Voyages, Assistant Architect

**Editing:** William West, Mona Levine

**Photography:** George de Vincent

Many thanks to all of the persons listed in the appendices who provided invaluable assistance to this project by sharing their special knowledge.

**Graphics:** Phil Sacks, Director, Stanley Shabronsky, Barbara Bartlett, Henry Nicholas, Zygmund Apel, Hedy Klein, Leo Lawrence, Norman Shilepsky, Vitaly Sorokine, Edward Whitman

**Manuscript:** Patricia Matthews

We wish to acknowledge the assistance of Larry Allison, Aaron Block, Barbara Beuhler, Eunice Fiorito, Jonathan Merrill, Marvin Roth, Elaine Solomon and Rona Ellen Weitz.



Michael J. Pittas suggested the structure of an architectural competition as the best means for designing the playground.

# A Playground for All Children

Book-2
Design Competition Program

PS 012367

HUD Contract No. H-2388

The research and studies forming the basis for this report were conducted by the City of New York Department of City Planning pursuant to a contract with the U.S. Department of Housing and Urban Development (HUD) Office of Policy Development and Research. The statements and conclusions contained herein are those of the contractor and do not necessarily reflect the views of the U.S. Government in general or HUD in particular. Neither the United States nor HUD makes any warranty, expressed or implied, or assumes responsibility for the accuracy or completeness of the information herein.

A PLAYGROUND FOR ALL CHILDREN

## FOREWORD

The three booklets of A Playground for All Children describe in considerable detail a unique project that we at HUD are most interested in: the development, by the City of New York, of the nation's first outdoor public playground to be especially designed for integrated play between handicapped and able-bodied children.

The first booklet describes the special play needs of the children, ages three to eleven, who are expected to use the playground, along with their abilities and disabilities. It also describes the comprehensive research studies that underlay the project, including site analysis and criteria.

The second booklet deals with the design competition, devised by the City of New York to encourage the widest variety of approaches and solutions to this challenging assignment.

The third booklet -- the resource volume -- documents the playground's development and deals with both process and product. Included in it are the survey of existing playgrounds, which was made in preparation for the competition, the four winning entries, and a description of other innovative concepts, designs, and play components.

We believe that the materials in these booklets will be of interest to recreation specialists, architectural designers, to those involved in special education of handicapped children, and to public officials and administrators all across the country. As the resource booklet concludes, perhaps the playground, when built, "will become a model for similar projects everywhere."

We look forward to learning of your reactions to A Playground for All Children.

Donna E. Shalala
Assistant Secretary for Policy
Development and Research

# A Playground for all Children

## DESIGN COMPETITION PROGRAM

City of New York
Abraham D. Beame, Mayor

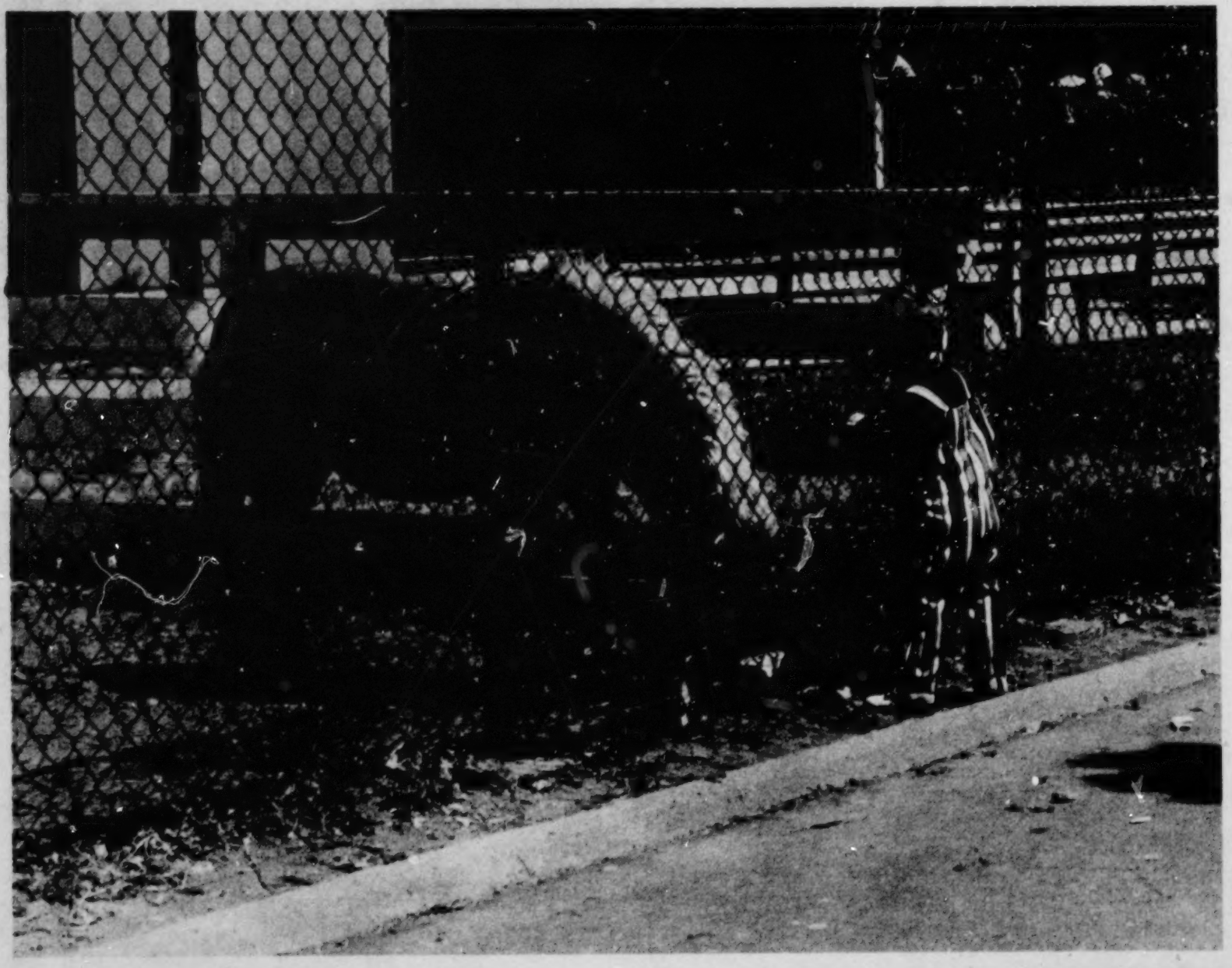
Martin Lang, Commissioner
Department of Parks and Recreation

Victor Marrero, Chairman
Department of City Planning

August 1976

NYC DCP 76-13

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402



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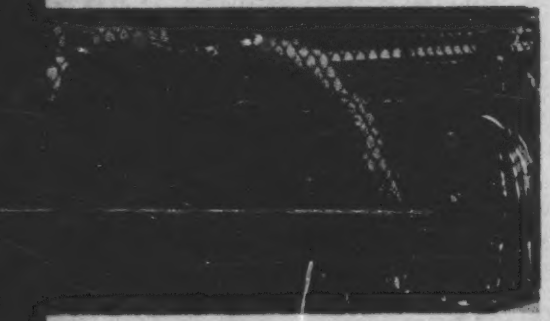
- Wheelchair Dimensions
- Ramps
- Handrails
- Steps
- Gates and Doorways
- Independent Toilet and Changing Area
- Water Fountains and Toilet Rooms
- Playground Components



# BACKGROUND

The City of New York is planning the first public playground facility designed for children with disabilities as well as for able-bodied children. The playground is believed to be the first of its kind in the nation.

Adopted as part of the City's first Federal Community Development Program, the playground is one of the first of several commitments by the City toward the special needs of its handicapped citizens. For generations children with disabilities have been unable to use public playgrounds because their design, equipment, and activities were inaccessible or were inappropriate to their special needs.

The design of recreation areas and facilities for the disabled is a relatively new and still limited area of the design profession. Playground design geared to integrated play among handicapped and able-bodied children is an even more unfamiliar challenge. Hence, the selection of an architect cannot be based on the usual qualifications of experience and performance in this field. Therefore, the City is holding a design competition to encourage the widest variety of approaches and solutions to the unique problems this playground presents. The New York City Department of Parks and Recreation and New York City Department of City Planning are co-sponsors of the competition.

It is hoped that this competition will encourage wide participation and bring the full range of design skills, intelligence, and innovative solutions to bear on this unique challenge.

# OBJECTIVES

The following objectives are to be met in the design of this playground:

1. *Creation of a public playground that may be enjoyed by all children in the three to 11 year age group, regardless of disability.*

2. *Provision of an integrated play experience for disabled and able-bodied children.* Many children with disabilities have little opportunity to participate in the larger community and are isolated from all kinds of experiences that are considered normal and desirable parts of development. Even the few recreation facilities available to the disabled child are often totally segregated by type of disability. Similarly, the able-bodied child's perception of his world is generally limited to play with other able-bodied children.

3. *Development of prototypical playground features that may be used in neighborhood playgrounds throughout the city.* It is hoped that this playground will become an example of how the needs of the handicapped can be served in the City's recreation facilities. Successful components of this playground will be reproduced in neighborhood playgrounds as they are refurbished or developed.

# RESEARCH

The City has completed a comprehensive research study of the special play needs of children with disabilities. The accompanying publication A Playground for All Children describes the potential user groups -- the types of children who are expected to use the playground, activities that are suggested for each user group, and special featrues that are needed. The publication is an integral part of the Design Competition Program, and should be considered carefully by the competitors. In addition an appendix, entitled "Accessibility Design Criteria" is included at the end of the competition description. It indicates wheelchair dimensions for different age groups; clearances and dimensions for ramps, steps, handrails and doorways; and suggested layouts for changing areas, toilet rooms and several playground components.

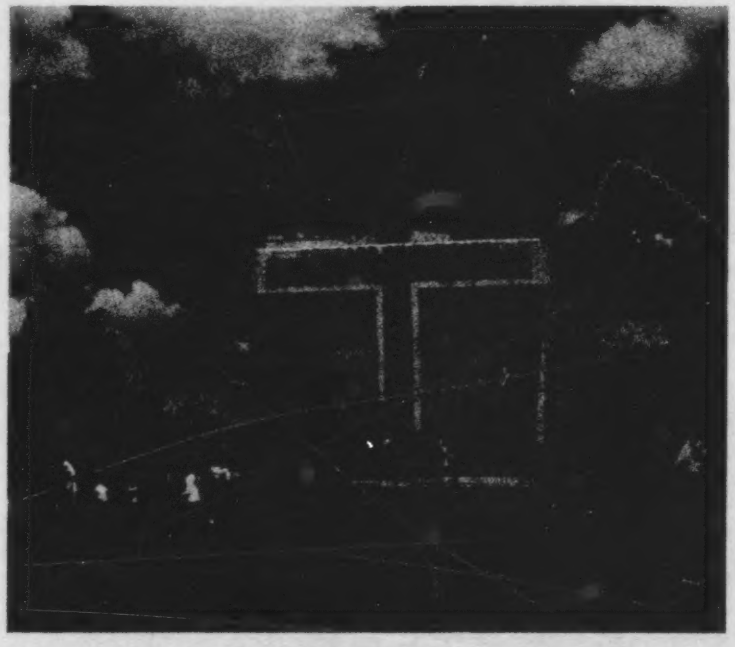
# SITE

The playground will be located in Flushing Meadow Park, one of New York City's principal parks. Flushing Meadow, the site of the 1939 and 1964-5 World's Fairs, is in the north central portion of the Borough of Queens, and contains major regional recreational facilities. Primary access is vehicular.

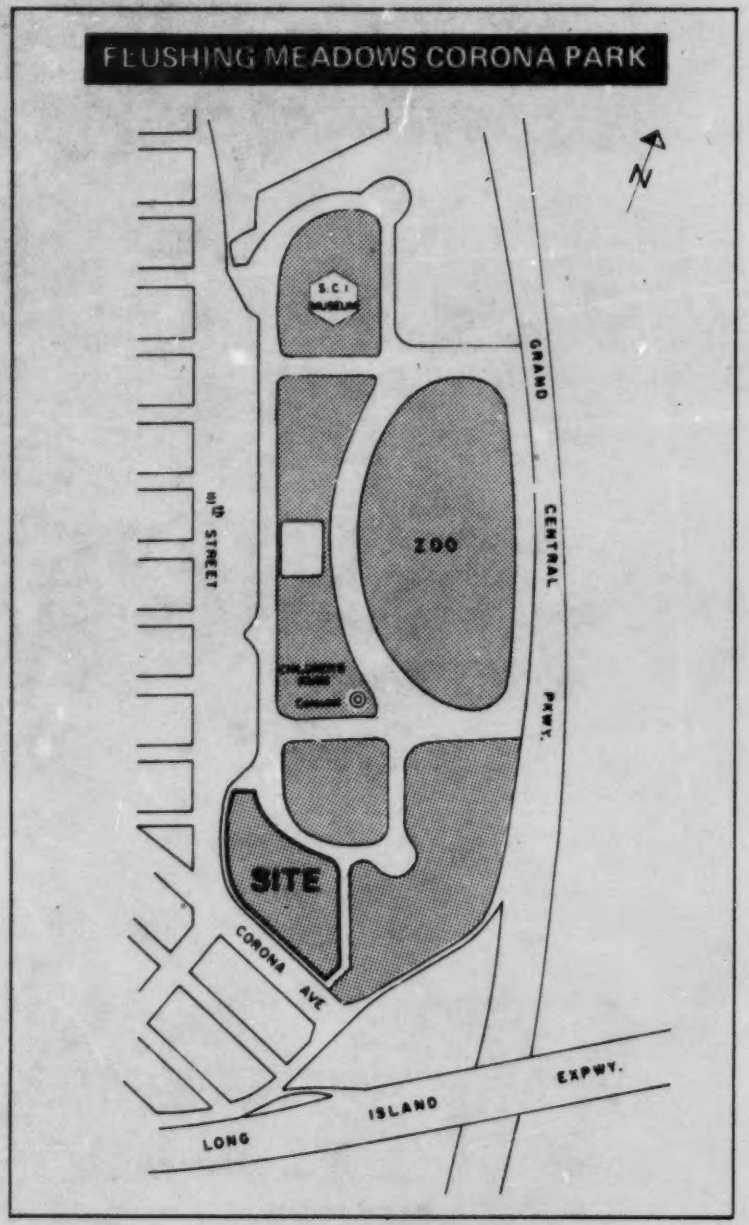
The specific playground site is adjacent to the Children's Farm, the Carousel, athletic fields, and the Zoo, and relatively close to the Hall of Science Museum. The analysis of potential users of the playground, and of possible sites, recognized that special planning would be necessary to achieve integration. The playground would have to attract able-bodied children. It would have to be located so as to have city-wide draw for families. The area was chosen (see accompanying publication A Playground for All Children, Part II, Site Analysis) because it offers an excellent potential for integration because of the surrounding facilities. The design should, in all respects -- visual access, entry, play facilities -- maximize integration opportunities.

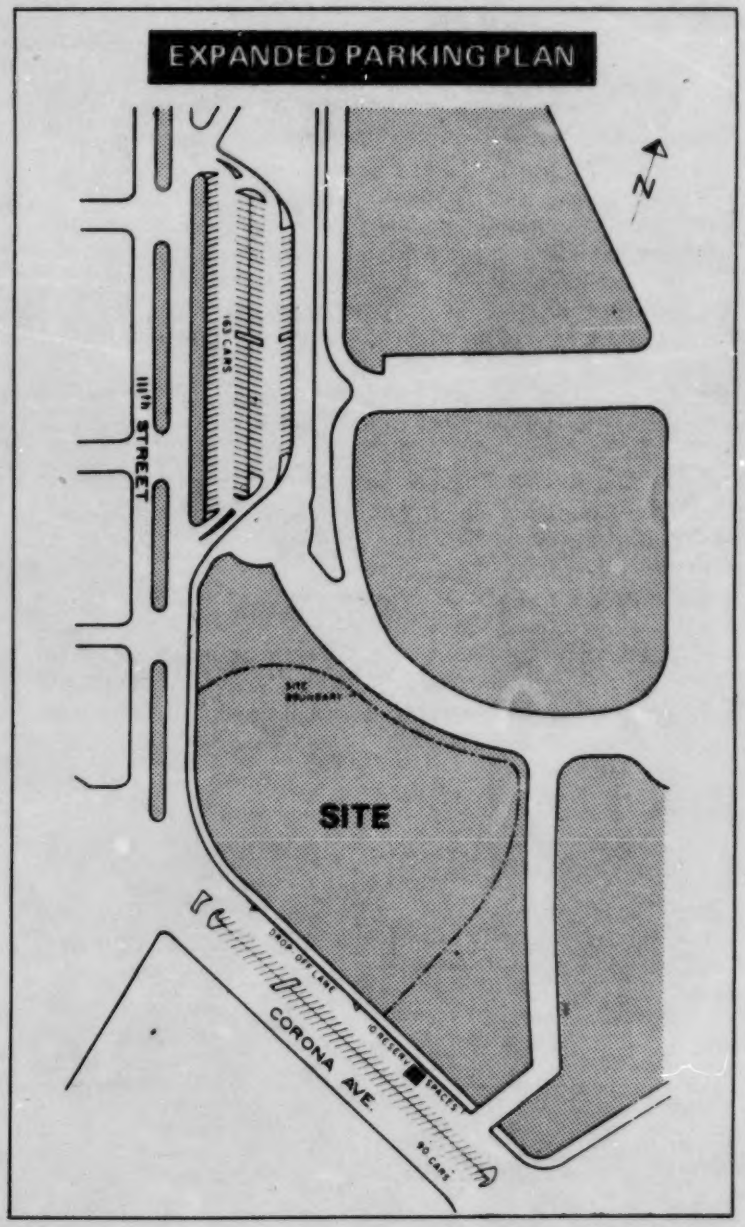
The playground is to have a maximum capacity of 150 children, with an expected average attendance of 100 children. It is anticipated that children will come to the playground with their families especially on weekends. However, during the week it is expected that special schools and/or institutions will also bring groups of children to the playground.

Existing parking will be expanded on Corona Avenue and 111 Street as indicated. In addition a curb-side drop-off lane for buses, vans and automobiles on Corona Avenue will be provided. Because of inherent special safety and supervisory requirements, access to and egress from the playground must be limited to two entrances -- one within the Park grounds, and one convenient to the Corona Avenue drop-off area.



*Foreground, Children's Farm. Middleground, Terrace on The Park. Background, Hall of Science Museum.*


FLUSHING MEADOWS CORONA PARK
N
S.C.I
GRAND CENTRAL PKWY.
111th STREET
ZOO
SITE
CORONA AVE
LONG ISLAND EXPWY.


EXPANDED PARKING PLAN
N
111th STREET
163 CARS
SITE BOUNDARY
SITE
DROP OFF LANE
10 SECURITY SPACES
CORONA AVE.
90 CARS

The playground site (see enclosed map) consists of 2.6 acres. It is presently a grassy area, except for an unused bocci court on the north-eastern end. The bocci court, which has fallen into disrepair, may be redeveloped, modified, or removed in the playground design. However, a handball court east of the site will remain for use by the nearby residents.

The following conditions apply to the sewer and water easements noted within the site boundaries:

(a) No construction of any structures which require footings or foundations shall be erected within the easement.

(b) No structure shall span over the easement which has a vertical height clearance of less than 20 feet.

(c) Grading, landscaping, paving and the installation of movable or demountable equipment within the easement area is permitted.

(d) No trees shall be planted within the easement area.

The site has a gentle slope which increases on its western end. There are a few trees on the perimeter. The design should show consideration of the general openness of Flusing Meadow Park.

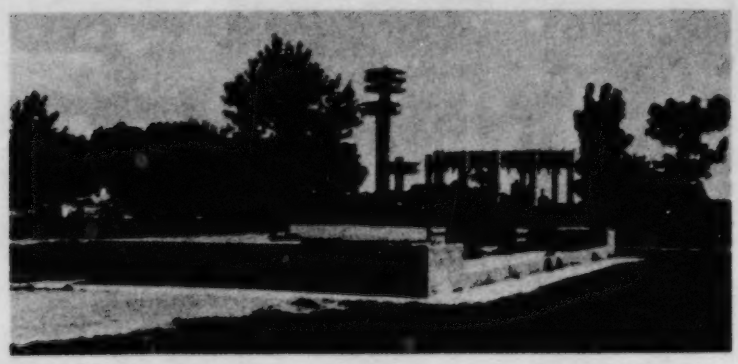
*Carousel*

*View lo*

*Unused*

*View lo*

*View looking towards 111th Street parking area.*



*Unused Bocci Court.*

*View looking towards southwestern portion of site.*

# PLAY ACTIVITIES

**General Considerations**

One of the major goals of this playground is to demonstrate how all children can play together. Ideally, each playground activity should encourage participation by children of all levels of skills, ability, and agility.

The planning and design of the playground should consider User Group I, the able-bodied child, for all activities. It is expected that the average use by the other user groups will be as follows:

| | | |
|---|---|---|
| User Group II | - Children with neuromuscular and orthopedic disabilities | 60% |
| User Group III | - Children with mental retardation and brain injuries | 20% |
| User Group IV | - Children with visual and hearing impairments | 10% |
| User Group V | - Children with arthritis | 5% |
| User Group VI | - Children with other chronic conditions such as heart disease, diabetes, epilepsy, and hemophilia | 5% |

The playground environment should be captivating and exciting to children, whether able-bodied or disabled. Above all, it is a place to have fun. The design must allow spontaneous play, and offer challenges and rewards for children who, because of their handicaps, usually have no control over their environment.

A range of activities from passive games to active sports is required. Competitors should refer to the publication A Playground for All Children which discusses the wide variety of special recreation needs that must be planned for, the reasons for these needs, and suggests some appropriate activities and safety and other special features.

Multiple levels of excitement are needed, from activities that calm through to those that stimulate and excite.

Although facilities for individual, parallel, cooperative, and group play are needed, it is expected that parallel and cooperative play will be the major modes of interaction.

Multiple levels of skill should be planned for, so that children at all levels may succeed, be encouraged by the successful experience, and be further challenged.

Because of the disabled child's limited physical experiences, activities that involve cause and effect relationships are particularly suggested.

**Required Activities**

All of the required activities listed below (A,B,C,D,E) must be satisfied by the competitor, but can be addressed in any number of ways. The designer may satisfy the requirements in separate or combined play components. Although there may be differing reasons for the activity depending upon the user group, the following types of activities are required:

A. Play involving body movement

1. swinging
2. rocking
3. sliding
4. climbing
5. crawling
6. bouncing
7. jumping
8. balancing
9. walking

B. Play that provides sensory stimulation:

1. tactile play, play involving textures
2. resilient densities and soft play equipment
3. sand play
4. water play (varied types of experiences with water). Note that funds do not permit a swimming pool. Equipment using water during the summer must still be able to function as viable play components during the non-summer months.
5. activities involving sound vibrations - especially User Group IV

C. A modified popular American group sport, such as basketball, volleyball, etc., in a multi-use space, with a small ampitheater or other arrangement to allow viewing. The space should be usable for other group activities, such as wheelchair dancing, puppet shows, etc. as well.

D. Play on wheels.....a pathway system or "trike track" for children in wheelchairs, on tricycles, wheeled carts, body dollies, and/or other wheeled toys. It should provide varied spatial and textural experiences which will be heightened by children riding through the pathway system. It should allow for a choice of directions and turns by the child. Possible solutions might include bridges, tunnels, smooth areas, soft areas (rubber surfacing) springy areas (rope bridge or spring board), rocking area (rocking bridge or see-saw), dark and light areas, forks in the pathway, upper and lower pathways, etc.

E. Passive play and interesting rest areas

**Notes on Possible Solutions**

Nature activities, although not explicitly required, might be considered as a possible solution to some of the required play activities.

Allowing disabled children to project situations in which their powers are greatly expanded, by providing, in play, outlets for experimentation with power through the inclusion of levers, pulleys, or gears in the design solution is strongly suggested. Although not a requirement only because of the difficulty of the design problem, *activities that enhance the disabled child's sense of power through use of devices that have a "multiplier" effect would be considered an extremely desirable method of solving some of the required play activities.*

# MAINTENANCE

An emphasis must be given to the durability and maintenance of the playground. Playground maintenance is a plaguing factor for all of New York City, and particular concerns must be addressed in the design. There should be no gas or electric power-operated play equipment because of this problem. Features required are extreme durability, very low maintenance needs and a playground as vandal-proof as possible. Materials should be considered that do not require frequent replacement. In designing sand play areas, care should be taken to insure that the sand areas are located beyond the spray range of water play equipment. Green areas should not be near intensively used equipment. Greenery and shrubbery should be accessible to maintenance personnel and power mowers.

# SPECIAL CONSIDERATIONS

A small staff of recreation and park maintenance personnel will supervise the playground facility. State and Federal grants-in-aid will be sought by the City to underwrite the major portion of the staff recreation costs. It is expected that the total staff will consist of three recreation personnel and a small maintenance team.

It is intended that most of the personal supervision will be done by parents or agency staff who accompany the children to the playground. Facilties must be designed to allow parental and staff monitoring at fairly close range, and include sitting areas for such monitoring. However, skillful placement and design can leave the child unaware of the adult's closeness, fostering a positive illusion of independence. For some children (especially User Groups II, III), a more closely contained area is necessary for monitoring and safety. The design must provide for ease of control and supervision.

Access to and egress from the playground will be limited to two entrances -- one within the Park grounds, and one convenient to the Corona Avenue drop-off area. Provision must be made for limiting the entrants to the playground when necessary to prevent overcrowding. Entrances should be designed to allow for the passage of Parks Department maintenance vehicles.

Safety is of paramount importance. Resilient surfaces and rounded edges on all equipment are mandatory. Falls should be anticipated from all equipment. Grab bars are needed. Handrails, not greater than 3/4 of an inch in diameter, should be provided. The entire playground must be accessible and safe for wheelchair ambulation.

Activities must be planned at multiple physical levels. Children will lie, crawl, sit, sit at varied wheelchair levels, ambulate at varied wheelchair levels, stand, and run.

Protection from the sun is essential for most activities (especially for User Groups II, III, VI). Natural shade may have to be supplemented by shading from man-made structures.

Several drinking fountains, accessible from wheelchairs and other levels, must be readily available for children who have difficulty getting about.

Special attention has to be given to toilet facilities. All toilets must be usable by the wheelchair-bound. In addition, provision must be made for shielded diaper-changing areas for older children who lack bladder and bowel control. Because some older children will need adult supervision or assistance in the toileting process, large private toilet cubicles will be needed so that an adult may accompany an older child of either sex. A modified type of bathroom and new type of changing and cleaning area should be located in the independent private toilet cubicles. (See Appendix for suggested layouts.)

# BUILDING PROGRAM

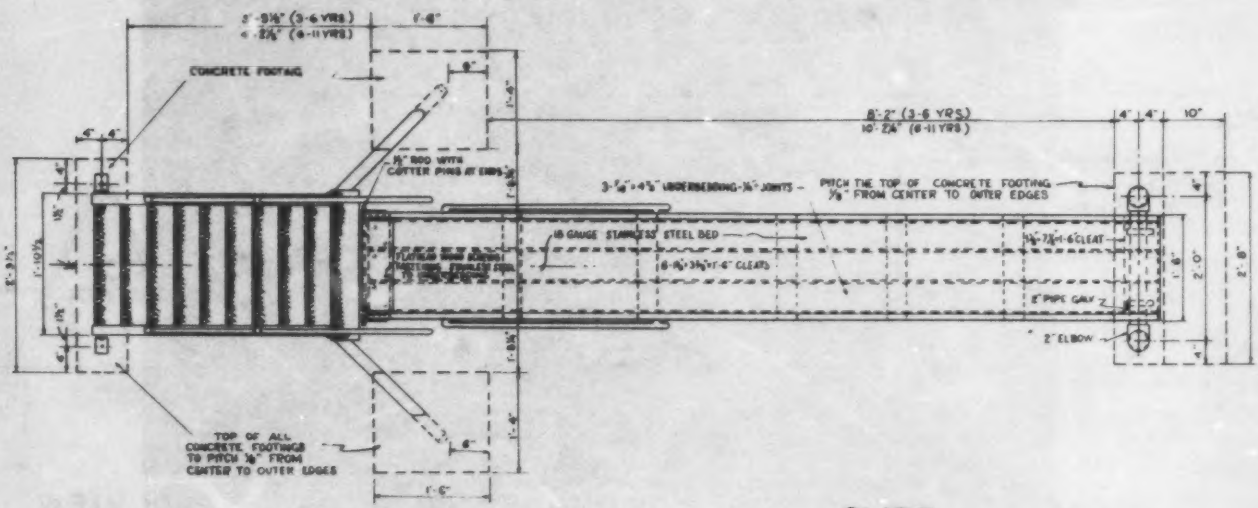
There is to be a service building (approximately 1,600 sq. ft.) on the site to provide space for staff and public accommodations.* The entire facility must be wheelchair accessible. It is to contain the following:

| Space | Area |
|---|---|
| Office for recreation staff | 150 sq. ft. |
| Lockable storage closet for supplies | 20 sq. ft. |
| Locker area for 10 staff persons | 80 sq. ft. |
| Storage area for maintenance and play equipment | 300 sq. ft. |
| First Aid area for children who require rest or medical attention. Space is needed for two cots, oxygen tank, and refrigerator. This area will be monitored by the recreation director. | 120 sq. ft. |
| Toilet facilities -- all wheelchair accessible | |
| Boy's toilet room: 2 water closets, 3 urinals, 2 sinks | as needed |
| Girl's toilet room: 4 water closets, 2 sinks | as needed |
| Three independent toilet and changing areas | 75-100 sq. ft. each |
| Janitor closet | 20 sq. ft. |
| Mech. equipment | as needed |

**One component or separate. However, the recreation office and first aid area must be together.*

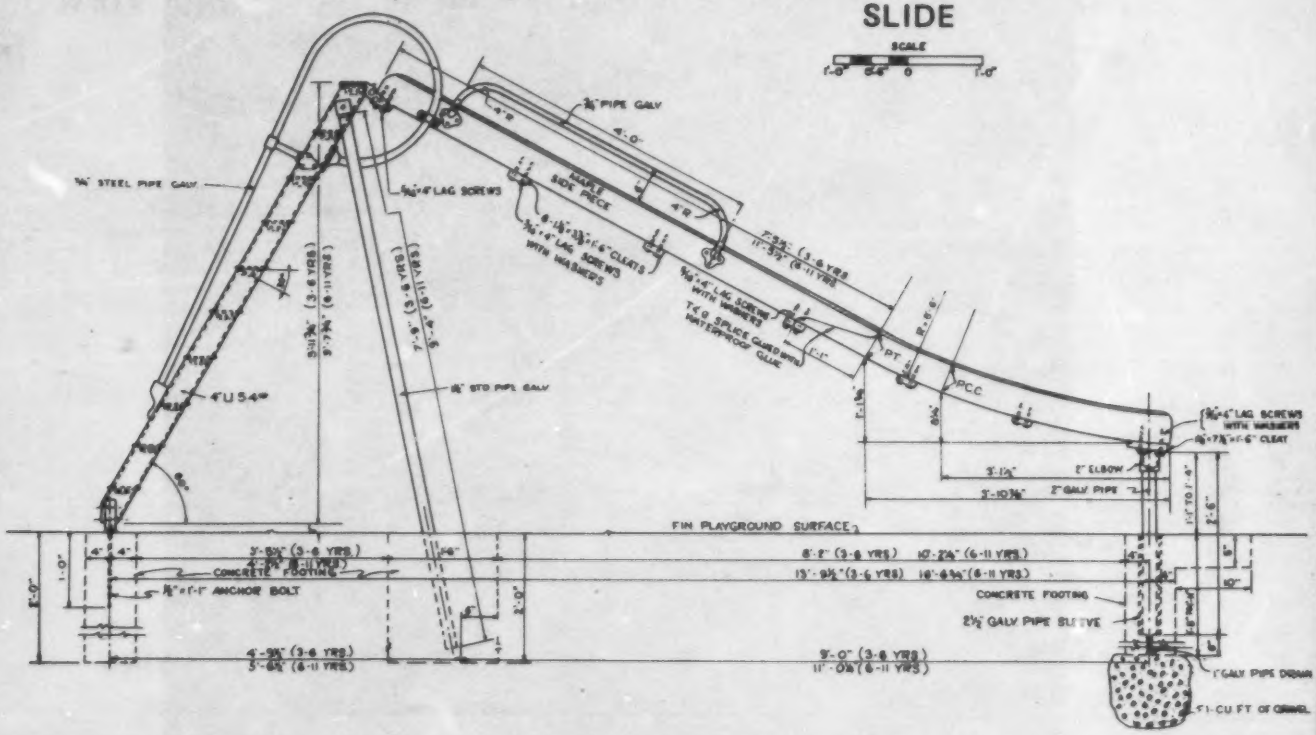
# PROTOTYPICAL FEATURES

One of the goals of this playground is the development of prototypical components that can be placed in playgrounds throughout the city, so that they will be usable by all children. To satisfy this requirement, the competitor may choose to design totally new components that are suitable for reproduction in playgrounds throughout the city, or he may design retrofitting components that will make existing standard playground equipment usable and accessible by children with disabilities; or he may consider a combination. The following drawings depict five pieces of traditional playground equipment which may be considered for prototypical retrofitting.

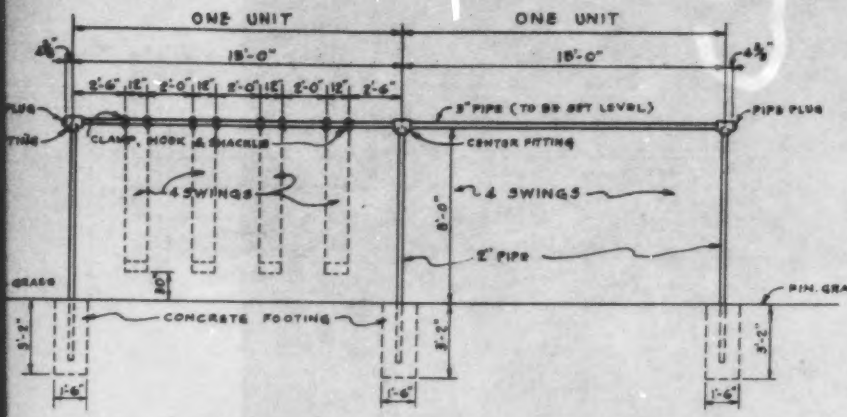

CONCRETE FOOTING
TOP OF ALL CONCRETE FOOTINGS TO PITCH ⅛" FROM CENTER TO OUTER EDGES
PITCH THE TOP OF CONCRETE FOOTING ⅛" FROM CENTER TO OUTER EDGES
18 GAUGE STAINLESS STEEL BED
2" ELBOW

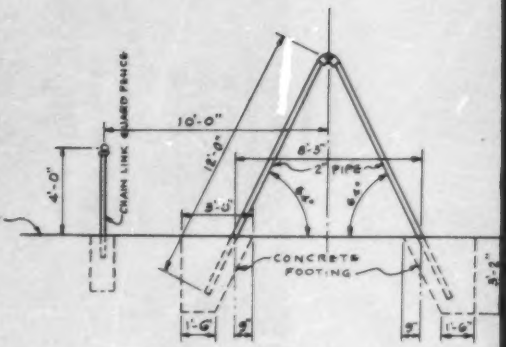
## SLIDE

SCALE


¾" PIPE GALV
¾" STEEL PIPE GALV
SIDE PIECE
4"R
PT
PCC
4"US4#
¾" STD PIPE GALV
FIN PLAYGROUND SURFACE
CONCRETE FOOTING
2" GALV PIPE
2½" GALV PIPE SLEEVE
1" GALV PIPE DRAIN
1 CU FT OF GRAVEL

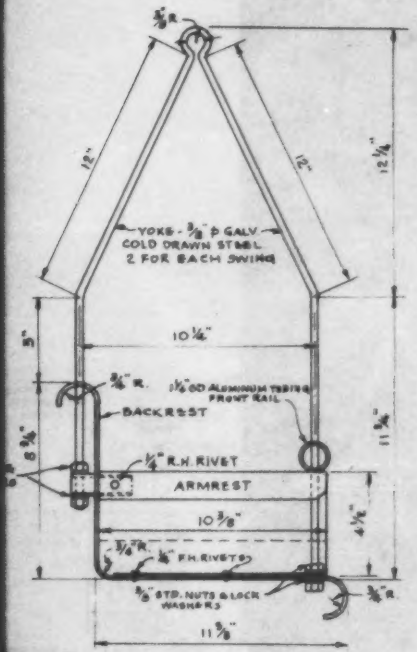
# KINDERGARTEN SWING (AGE 3 TO 6)



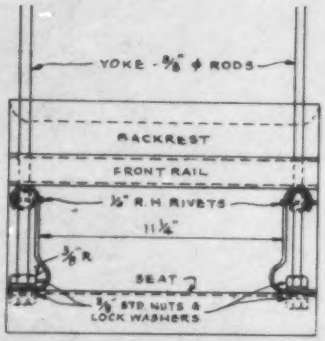




ELEVATION — 8 FOOT SWING FRAME — END VIEW

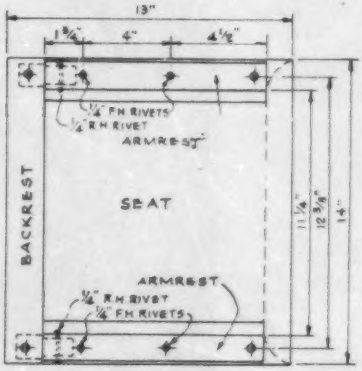
SCALE
0 6" 1' 2'




SIDE ELEVATION




FRONT ELEVATION

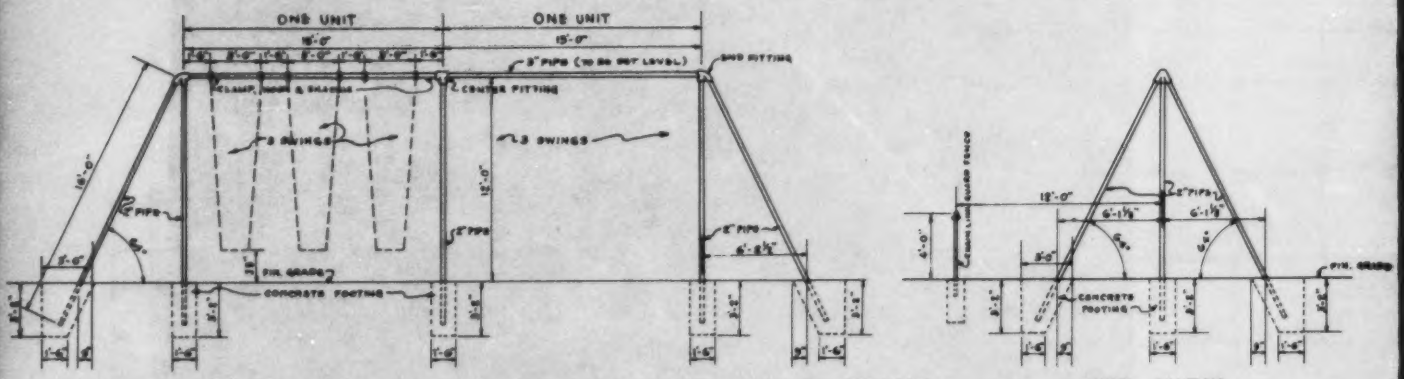



PLAN

SEAT AND YOKE FOR KIND. SWING

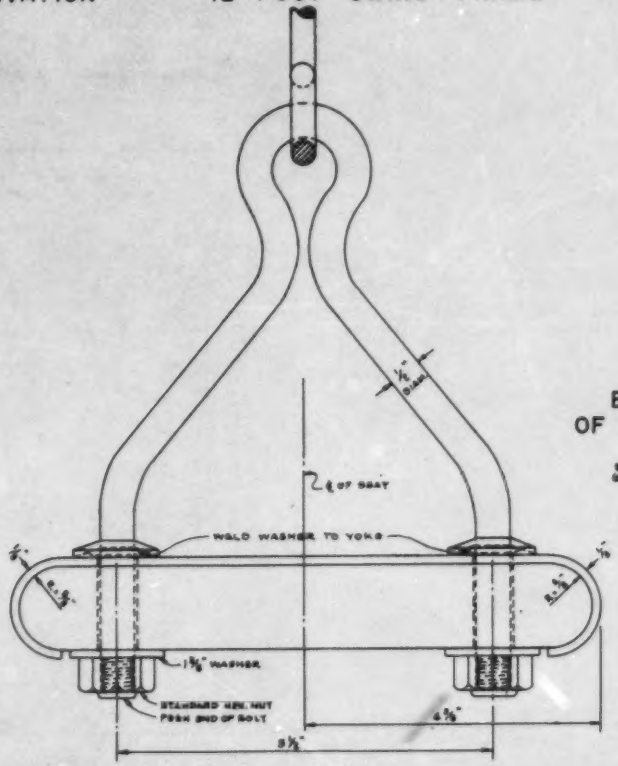
SCALE
0 6" 1' 2'

# PLAY SWING (AGE 6 TO 11)




ELEVATION — 12 FOOT SWING FRAME — END VIEW

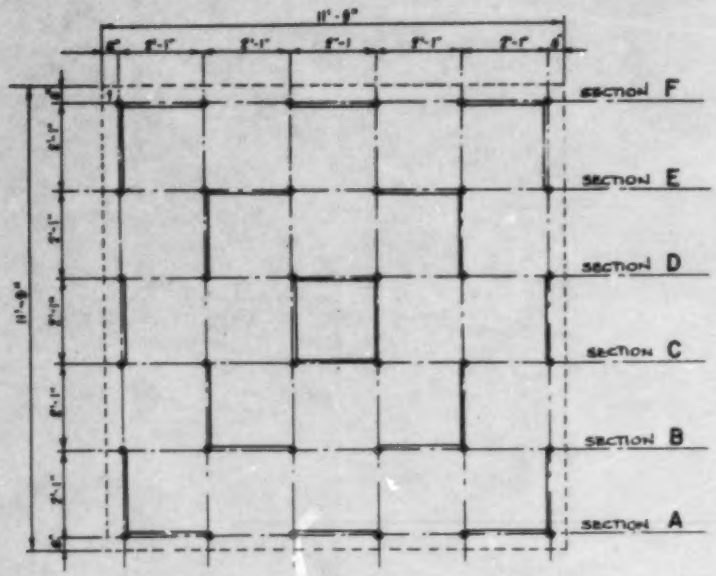
SCALE



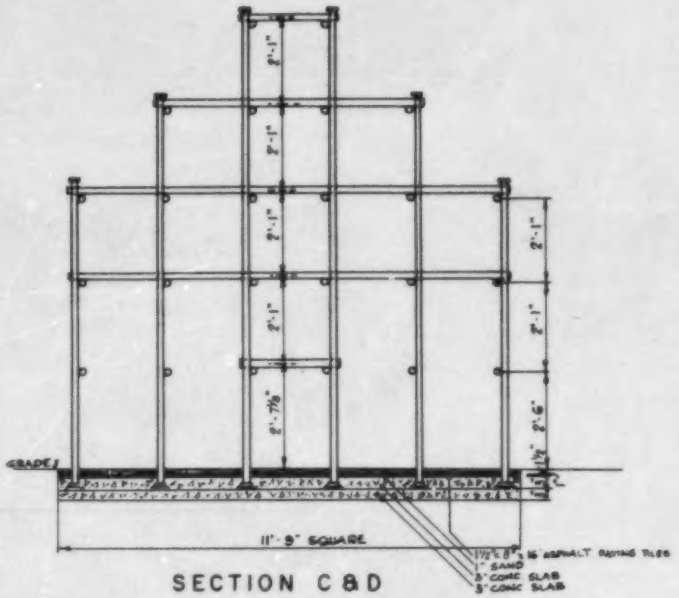

END VIEW
OF YOKE & SEAT

SCALE

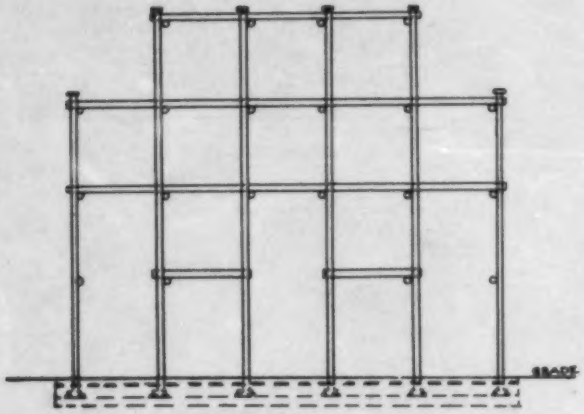
# PIPE FRAME EXERCISE UNIT



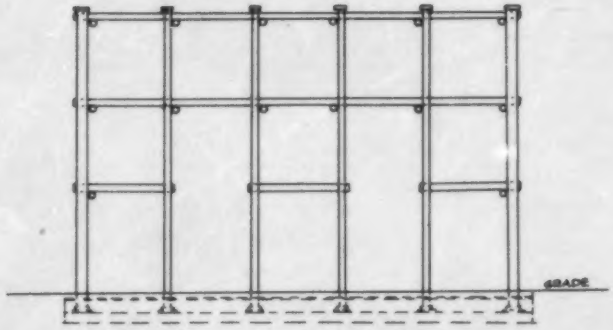

PLAN




SECTION C&D




SECTION B&E

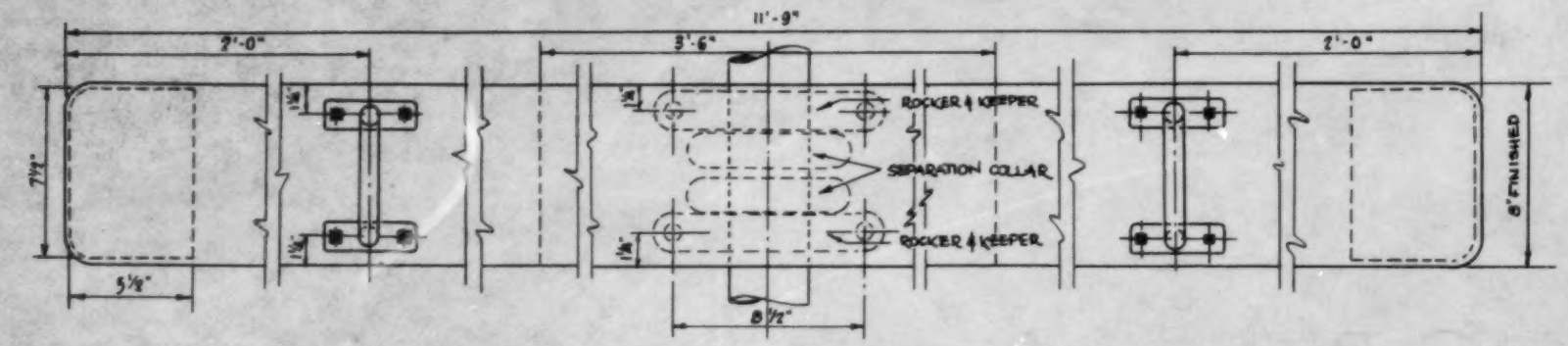



SECTION A&F

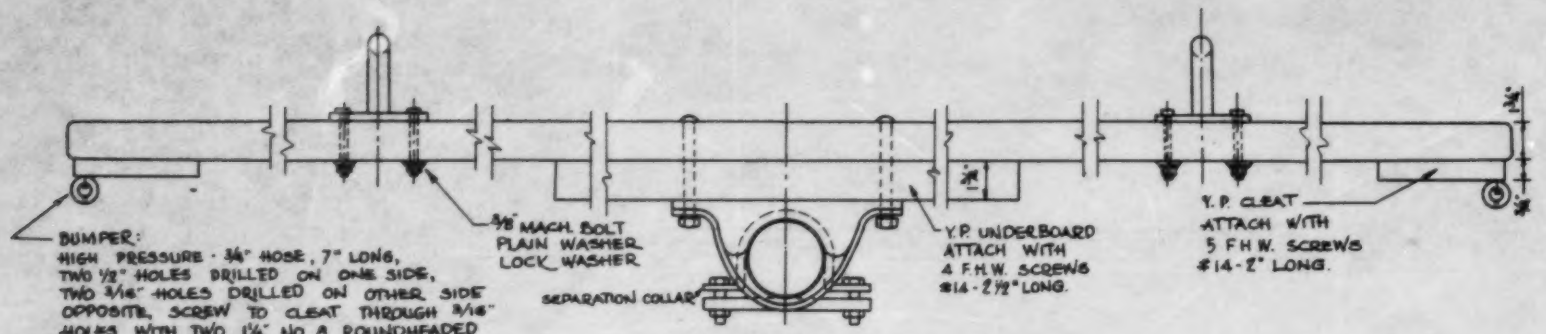
NOTE: ALL VERTICALS & HORIZONTAL MEMBERS ARE ¾ ϕ GALV. PIPE EXCEPT THE 4 OUTSIDE CORNERS VERTICALS WHICH HAVE 1½" ϕ GALV. PIPE.

SCALE

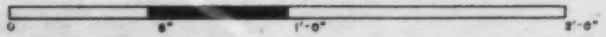
# SEE-SAW BOARD




PLAN




ELEVATION




SCALE

# CONSTRUCTION BUDGET

It is projected that the playground will be built in 1978 at a cost of approximately $700,000.

# SEMINAR

The New York City Department of City Planning has a contract with HUD to prepare a national survey of recreation facilities for children with handicaps. They will conduct a seminar and present slides regarding their findings on or about October 7, 1976. The seminar will be open to all interested parties. In addition, all registered Design Competition participants will be notified in advance by the Professional Adviser.

# CONDITIONS

**Type of Competition**

As defined by the American Society of Landscape Architects and the American Institute of Architects this is a Primary Class A competition and is open and anonymous as hereafter defined.

**Professional Adviser**

The Sponsors have appointed Charles M. Smith, Jr., A.I.A., Executive Director of the New York City Department of City Planning, as the Professional Adviser for the competition. His address, for registration and questions only, is:

Charles M. Smith, Jr., A.I.A., Professional Adviser
PLAYGROUND COMPETITION
New York City Department of City Planning
2 Lafayette Street - Room 2127
New York, New York 10007

# JURY

**James L. Beech**, Director and Construction Coordinator of the nationally acclaimed Magruder Environmental Therapy Complex, Forrest Park School for Physically Disabled Children; Orlando, Florida. Physical Education Teacher and Administrator.

**Peter Blake**, FAIA, Chairman, Boston Architectural Center; Author, Editor and Architectural Critic.

**Charles Gueli**, AIA, Director of Community Design Research. U.S. Department of Housing and Urban Development. Government Project Manager of Studies Focusing on Architectural Barriers.

**Eric A. McMillan**, Industrial Designer, Creator of revolutionary playground equipment at Children's Village, Ontario Place in Toronto, Canada; Captain Kid's World at Sea World, Ohio; and Sea World in San Diego, California. Over 200,000,000 children enjoy these facilities each season.

**J. Craig Purves**, Director of Planning, Construction and Maintenance, Ontario Place, Toronto, Canada. Principal of construction firm specializing in creative children's play areas. Director of Construction for Ontario Pavilion; Osaka, Japan. Cost and materials expert.

**Joan Shepard**, Vice President of United Cerebal Palsy Parent Association; active in Spina Bifida Association of Greater New York; B.S. Education. Parent of Disabled Child.

**Robert Zolomij, L.A.**, Professor of Landscape Architecture, University of Illinois; Playground Designer; Specialist in Playgrounds for Disabled Children.

## CONSULTANTS TO THE JURY

**David Marquez**, 12 years old, graduate of P.S. 199, Manhattan....1976 Muscular Dystrophy Poster boy....who would like to see architects and engineers design a new product that is simultaneously transparent, strong and soft. The purpose of this new material would be to allow wheelchair bound children to glide over sand quickly and yet still feel as if they were moving through sand....should they or any other child fall, the softness of this new material would cushion the impact.

**Jose Rivera**, 12 years old, sixth grade student of P.S. 199, Manhattan....Jose is a street-wise East Harlem urchin....he only reluctantly agreed to serve as consultant to the jury when it became abundantly clear that in no way could he enter the competition without being a registered architect or a landscape architect. "Those guys are lucky because I would have won."

# PROCEDURE

**Interpretation of Requirements**

Rules of the competition, parameters of the design and the designated competition site will be strictly interpreted.

**Eligibility**

Except as noted below, participation is open to any person who is licensed to practice architecture and/or landscape architecture in the State of New York and whose residence and/or place of business is in the State of New York; provided that he or she files a completed Registration Form with the Professional Adviser on or before September 20, 1976.

A firm of architects, or landscape architects, an association of such firms with consultants, or an association of designers grouped together expressly for participation in this competition, will be eligible to participate provided that no less than one person in such group is licensed for architectural practice as above.

Architectural and design students in New York City may not enter this competition even though they may be associated with a firm or individual that is licensed for architectural practice as above. There will be a special architectural and design school competition in New York City which will be announced for interested students.

Members of the Jury, their associates and employees, and employees of the New York City Department of City Planning or the New York City Department of Parks and Recreation or its subsidiaries are excluded from this competition.

**Registration and Questions**

Every person or group intending to enter this competition shall complete the registration form and mail it in the enclosed self-addressed envelope with a $25.00 registration fee, payable to the City Planning Department Fund. This fee is in addition to the $5.00 fee that was paid for the competition material. Registration Forms must be postmarked by September 20, 1976.

Information submitted on the Registration Form will be used to determine eligibility. When the Professional Adviser is unable to verify eligibility from this information he will notify the unqualified competitor in writing that he or she is ineligible. The decision of the Professional Adviser shall be final.

From the Registration Forms received, the Professional Adviser will prepare a Register for his use in communicating with competitors.

No design will be accepted for Judgement from any source except from participants listed on the Register, and the Register shall remain confidential except as hereafter provided.

The submission of any entry indicates that the competitor desires, if successful, to execute a contract for architectural services with the New York City Department of Parks and Recreation.

**Communications**

All communications requesting clarification of the program or requirements shall be addressed to the Professional Adviser, typewritten, and without any identification of the sender. No such communications will be accepted after October 15, 1976.

The enclosed self-addressed envelopes should be used for mailing the registration form and other communications.

A copy of questions received and answers thereto will be sent to all competitors at the earliest practical date or dates. These and any other necessary communications from the Professional Adviser shall be considered modifications and extensions of this program. The Professional Adviser reserves the right to disallow questions whose answers would not in his judgement clarify the program at the particular stage in which they are asked.

**Anonymity**

Competitors are not allowed to communicate directly or indirectly with the Sponsors, the Jury, or the Professional Adviser, on matters pertaining to the competition, except as provided for in the paragraph on Communications above.

Proof of any such breach, as determined by the Professional Adviser, will result in disqualification. Each competitor in submitting any entry affirms that he or she has complied with all provisions to conceal the authorship of his or her entry and agrees that any deviation therefrom renders null and void any agreement resulting from the judgement. The Sponsors, for their part, undertake to conduct the competition in such a way that they, the Jury, and the Professional Adviser have no means of identifying the entries until the Jury decisions have been made. Unwrapping of entries will be performed by personnel other than the above.

**Submission**

To make working time equal for all competitors, a deadline for completion is set two weeks in advance of the beginning of the judgement. Entries must either be delivered before the deadline, or have postal proof of compliance with the deadline.

No entry shipped or mailed will be accepted if it arrives after the beginning of the judgement, even through proof of compliance with the deadline is received. The arrival of packages in New York City in good condition and on time is the responsibility of the competitor.

Entries may be sent via the U.S. Postal Service, by Air Mail Parcel Post; by United Parcel Service; or be delivered by hand.

Competitors may submit more than one entry providing they submit a completed registration blank and $25.00 fee for each entry.

All entries shall be doubled wrapped so that the outer wrapper containing postmarks and return addresses may be destroyed. The inner wrapping is to be completely unmarked. The competitor shall attach to the back of Board No. 3 an opaque sealed white envelope without any outer marking, containing the name, address, and telephone number of the competitor as it appears on the registration form.

Receiving personnel will remove the outer wrapping and assign numbers to the envelopes and entries before turning the entries over to the Professional Adviser for his examination.

Entries shall be in one flat package for each entry. All packages shall be double wrapped and identified as provided above, and protected adequately for shipment. They shall be sent prepaid to the Professional Adviser, as indicated:

Charles M. Smith, Jr., A.I.A., Professional Adviser
PLAYGROUND COMPETITION
New York City Department of City Planning
2 Lafayette Street, Room 2127
New York, New York 10007

The return address of the competitor should appear on the outer wrapping.

# JUDGMENT

The Sponsors agree that the decision of the Jury will be final in respect to the selection of the four winning designs. The decision shall be binding on all competitors.

Following delivery of the numbered drawings to the Professional Adviser, he shall examine them to determine whether they comply with the requirements of the Program, reporting to the Jury any instances of noncompliance. The Jury, having satisfied itself as to the accuracy of such report, shall then disqualify from further consideration any entry failing to comply with the requirements. The Jury shall make a thorough study of the Program including any modifications and extensions thereof previously issued to competitors, and shall then study thoroughly all qualified entries.

**Evaluation Criteria**

The following point value system will be used in judging the entries.

I. Overall Design Approach and Solution of Prime Objectives — 30 points

   a. Imaginativeness and overall design approach to problem. Shall consider creativity of total playground experience and solution to general planning criteria such as amount of open space; control, location and quality of access points; capacity and costs.

   b. Creation of a public playground that may be enjoyed by all children in the three to 11 year group regardless of disability. The playground should provide a "fun" experience for all children. It should captivate, stimulate and excite all children. It should offer the children challenges and rewards.

   c. Provision of an integrated play experience for disabled and able-bodied children. The playground should provide for interaction between all user groups on many levels of skill, ability and social contact.

| | | |
|---|---|---|
| II. | Solution of specific play activities | 25 points |
| III. | Special Considerations. Safety, shading, accessibility and supervision | 15 points |
| IV. | Maintenance Considerations | 10 points |
| V. | Building Design | 10 points |
| VI. | Prototypical Features | 10 points |
| | TOTAL | 100 points |

**Selection of Finalists**

Having selected by discussion and majority vote not more than four entries which appear to be the most meritoricus among all entries submitted, the Jury shall notify the Professional Adviser in writing giving the numbers of the selected finalists.

The Professional Adviser in the presence of the Jury shall then cause to be opened the envelopes corresponding to these numbers, and announce the names and addresses of the finalists to the Jury. The envelopes shall be opened in such a way that neither the Jury nor the Professional Adviser shall be able to associate the name of the finalists with a particular design.

# AWARDS

**Prizes**

There will be four prizes, each a $10,000 Contract Award. It is the intention of the Sponsors to employ the four winners to produce design development documents of their winning designs, as described in Contract Awards in the following paragraphs.

Honorable Mentions may be given, without contract awards, at the discretion of the Jury.

**Use of Features of Unsuccessful Designs**

The Sponsors reserve the right to make use of any original individual feature of an unsuccessful design. The amount of compensation to the designer shall be mutually determined by the designer and the sponsors. In the event of a deadlock, the Professional Adviser shall designate an arbitration panel consisting of three New York State registered architects and/or landscape architects, to determine the amount of compensation.

**Contract Awards**

To assure the Sponsors of buildable schemes, and of a firm's administrative capabilities, each winning finalist will be awarded a $10,000 contract to prepare design development drawings of his winning scheme. The finalists will work closely with the Sponsors during this period. The Sponsors reserve the right to require design element modifications if necessary. During this time, the Department of Parks and Recreation will perform technical and administrative evaluations focusing on meeting deadlines, costs, construction problems, maintenance and durability concerns and other related items.

**Selection of Firm for Architectural Services**

At the end of the Design Development stage, the Sponsors will select one firm based on the above evaluations. It is the intent of the Sponsors to contract with the selected firm for the preparation of the construction contract documents.

The four winning finalists shall furnish such evidence as may be required with regard to experience, staff, and proposed consultants. If the Sponsors consider these qualifications inadequate, the selected finalist will then be required to associate with an architectural firm selected by him on consultation with and acceptable to the Sponsors.

**Fee Schedule**

The fee will be six (6) per cent of the construction cost less $10,000 already paid for in design development.

# ENTRIES

**Exhibition and Publication**

No entries submitted shall be exhibited or published until the results of the Judgement have been announced. The Sponsors reserve the right to subsequently exhibit and publish such entries as they may elect. Every reasonable effort will be made to insure that all authors are given full credit for designs so exhibited or published, but the Sponsors cannot be responsible for the failure of the press or others to give proper credit.

**Return of Entries**

When desired by the competitor, entries will be returned promptly following termination of the Judgement, with the exception of such entries as have been selected for exhibition and/or publication. These will be returned upon request at a later date.

The competitor will indicate a desire for return of submission in writing to be included with the identification in the white envelope attached to Board No. 3. Also included should be instructions as to how the entry is to be returned, and postage if required.

**Ownership**

The entries of the winners shall become the property of the Sponsors.

The winning competitors selected by the Jury acknowledge the right of the Sponsors to carry out the design, if necessary through personal representatives, successors, assignees without additional expense to the Sponsors beyond the terms of the contract.

# SUBMISSION REQUIREMENTS

It is the desire of the New York City Department of City Planning and the New York City Department of Parks and Recreation to encourage the participation of large numbers of responsible competitors. To this end the form of entry is intended to be simple but complete. Competitors shall provide all the required documents at the required scales and sizes. No other presentation material is permitted.

No identification of the entrant may appear on any part of the submission, except concealed in an envelope attached to back of Board No. 3. Entries will be kept anonymous until judging is completed.

**Presentation**

All drawings shall be on stiff white boards 30" x 40". Color is permitted. Printed reproductions of drawings, tones, lettering or typescript may be mounted upon the boards. All specific explanatory notes and diagrams shall be placed on the boards. All plan boards must be organized with the northern boundary to the top (as per enclosed plan drawings) with boards composed horizontally. Borders and a title shall not be used. Each drawing shall be identified (i.e. plan, section, elevation, detail, diagrams, etc.). The number of the board shall appear in black 1" high at the lower right hand corner of each board.

All presentation materials must be mounted flush with the boards; no raised material shall be allowed.

**Documents**

Required: Mandatory Drawings: Three numbered boards each 30" x 40"

Written Statement: One to three pages, 8-1/2" x 11", typewritten, double-spaced.

Mandatory Drawings:

Board One - Area wide plan at 1" = 20 feet using the enclosed site plan covering area of 22" by 40". Remainder of board to include two section-elevations at 1" = 20'.

Board Two - Single overall representation of solution in perspective, isometric or model photograph. The view should be taken looking north from Corona Avenue.

Board Three - Detail drawings, renderings, or model photographs at a suitable scale showing a minimum of three playground components. These should indicate the construction/fabrication, materials and how the equipment will be used. Supporting text is allowed but only to the extent that the graphic explanation cannot fully convey the idea. Text should include a description of unique materials, or systems manufactured regarding their properties, maintenance characteristics, etc.

Written Statement (Required)

One to three pages, 8-1/2" x 11", typewritten double-spaced, containing a brief discussion of the designer's conceptualization of the playground and a discussion of his solutions to the required objectives. The written statement shall be stapled together, inserted in a plain manilla envelope and attached to the back of Board No. 1. The competitor may also (optional) wish to include in his written statement explanatory material relating to the solutions to the required play activities.

# SCHEDULE

Release of Program
Opening of Registration .....August 3, 1976

Closing of Registration .....September 20, 1976

Seminar
(on or about).....October 7, 1976

Final Date For Questions .....October 15, 1976

Final Date For Submission ..... November 22, 1976

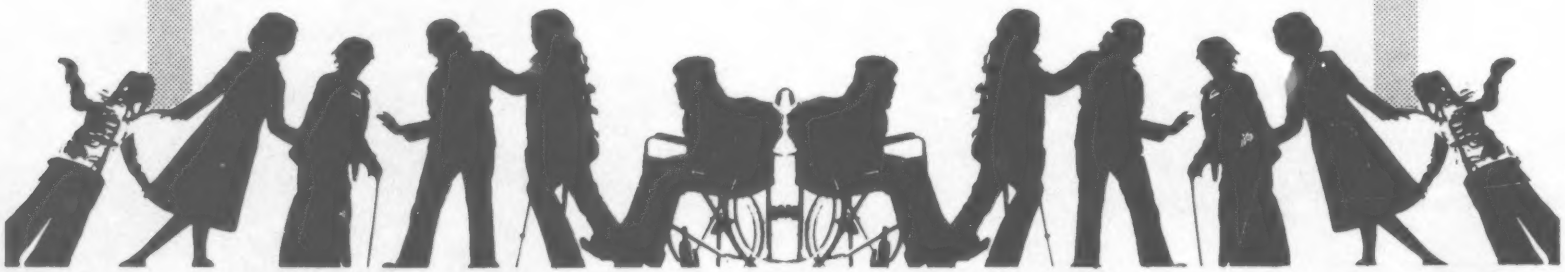
Jury Convenes..... December 6, 1976

Announcement of Awards
(approximately) ..... December 9, 1976

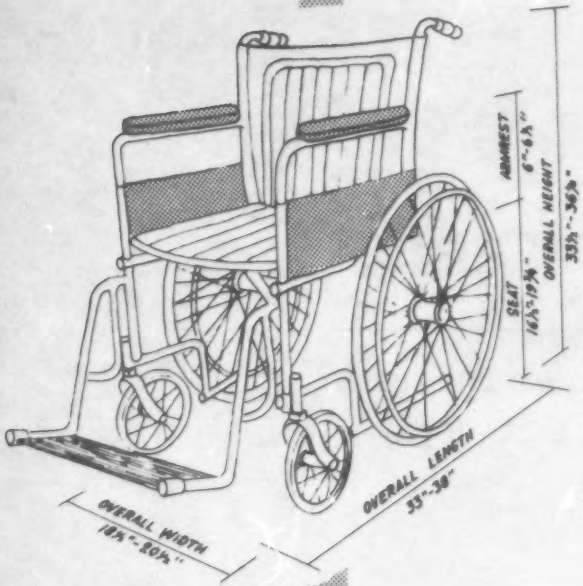
# APPENDIX

# ACCESSIBILITY DESIGN CRITERIA

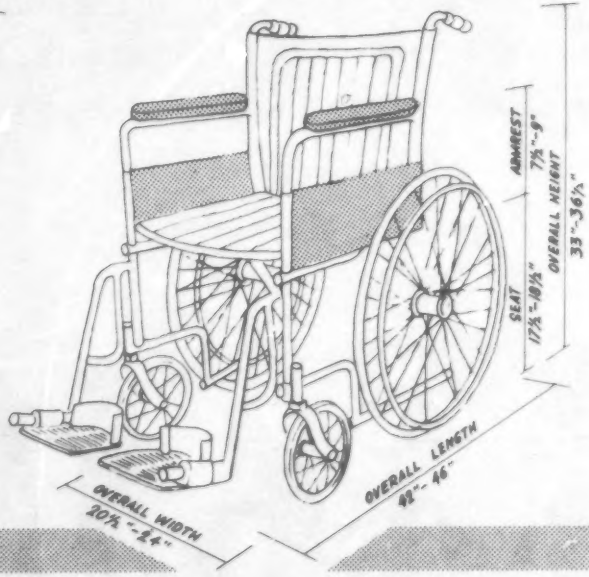
The following section was compiled to give the contestants an insight into some of the dimensions and clearances that should be considered in the playground design.



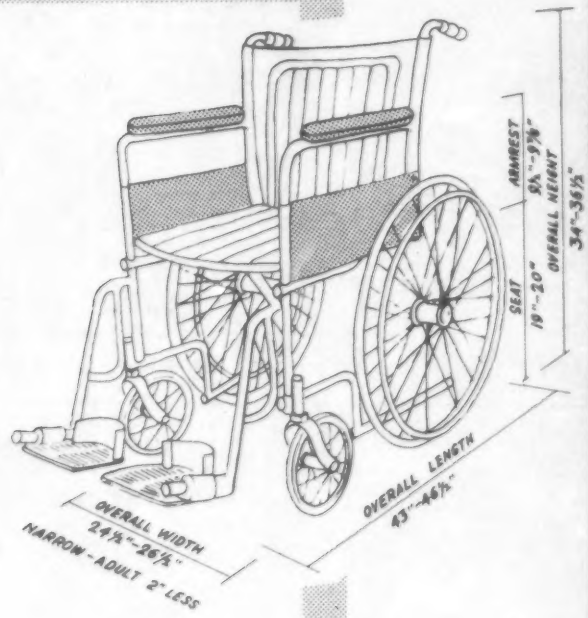
## WHEELCHAIR DIMENSIONS




**CHILD SIZE**
**UP TO 6 YEARS**

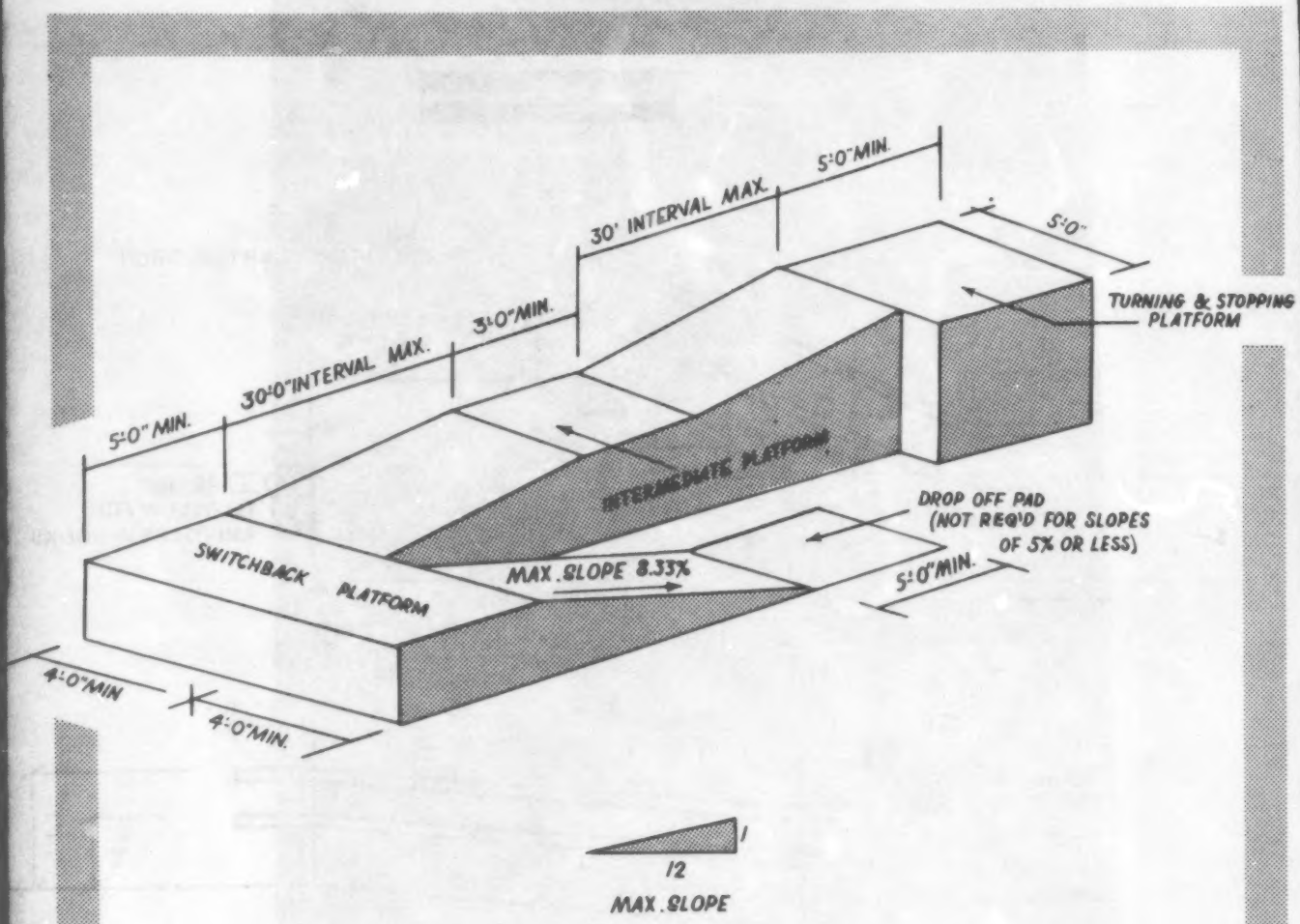



**JUNIOR SIZE AND**
**ADJUSTABLE GROWING**
**6 TO 12 YEARS**

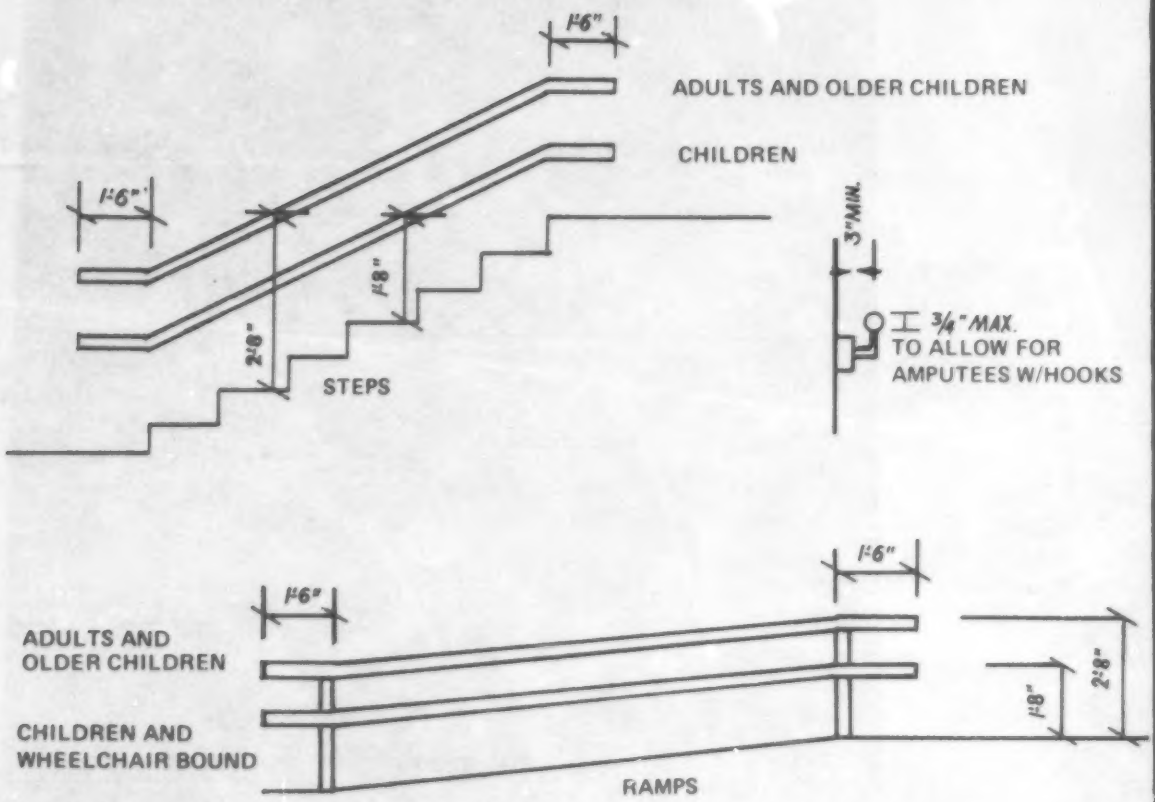



**TEENAGER**
**AND**
**ADULT SIZE**

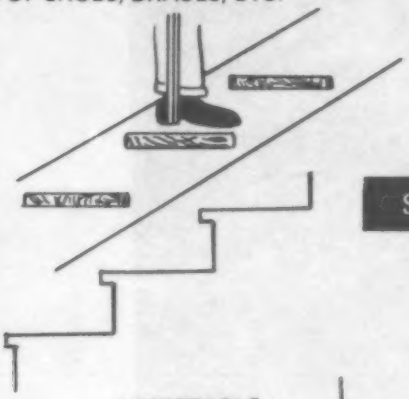
# RAMPS


5'-0" MIN.
30' INTERVAL MAX.
5'-0"
3'-0" MIN.
30'-0" INTERVAL MAX.
TURNING & STOPPING PLATFORM
5'-0" MIN.
INTERMEDIATE PLATFORM
DROP OFF PAD
(NOT REQ'D FOR SLOPES OF 5% OR LESS)
SWITCHBACK PLATFORM
MAX. SLOPE 8.33%
5'-0" MIN.
4'-0" MIN
4'-0" MIN.
1
12
MAX. SLOPE

## HANDRAILS

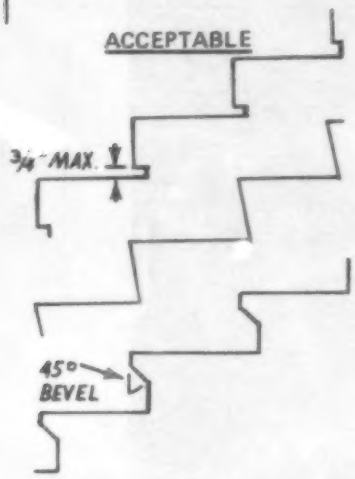

1'-6"
ADULTS AND OLDER CHILDREN
CHILDREN
1'-6"
1'-8"
2'-8"
STEPS
3" MIN.
¾" MAX.
TO ALLOW FOR
AMPUTEES W/HOOKS
1'-6"
1'-6"
ADULTS AND
OLDER CHILDREN
CHILDREN AND
WHEELCHAIR BOUND
1'-8"
2'-8"
RAMPS

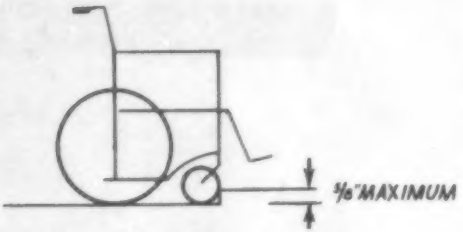
DANGEROUS
RECESSES AND NOSING CAN CATCH TOE OF SHOES, BRACES, ETC.



## STEPS

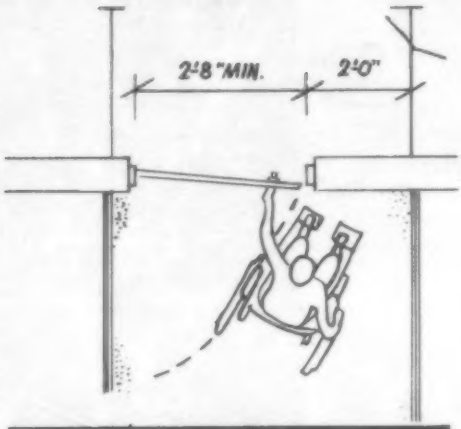
ACCEPTABLE



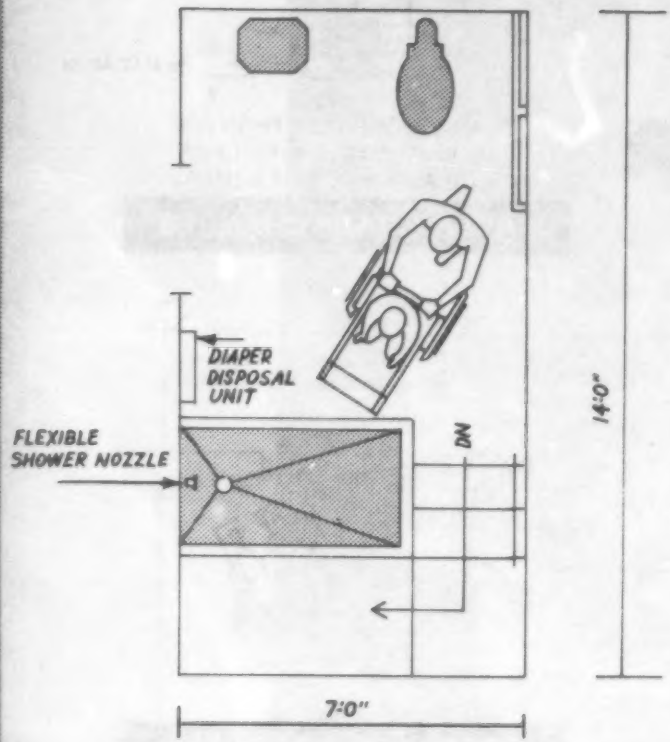

CHANGES GREATER THAN 5/8" OBSTRUCT SMALL WHEELS OF CHAIR AND MAY TRIP OTHERS

## PAVED GRADE CHANGES

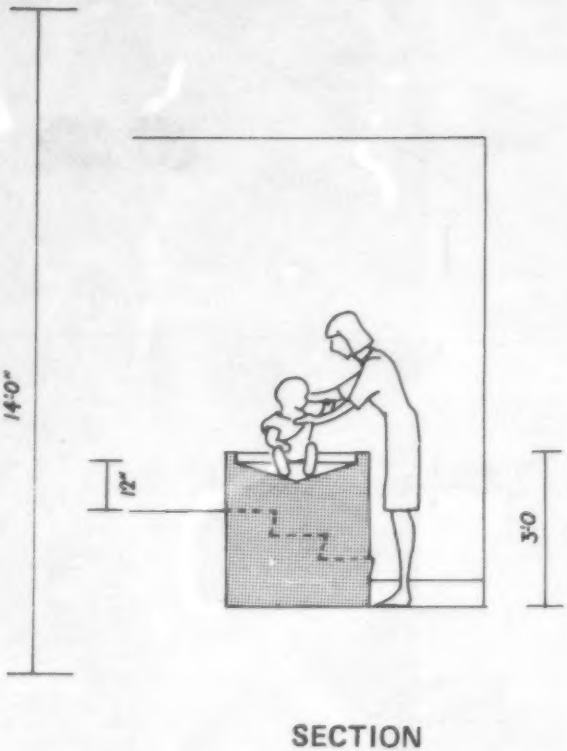



## GATES AND DOORWAYS

## INDEPENDENT TOILET AND CHANGING AREA




PLAN




SECTION



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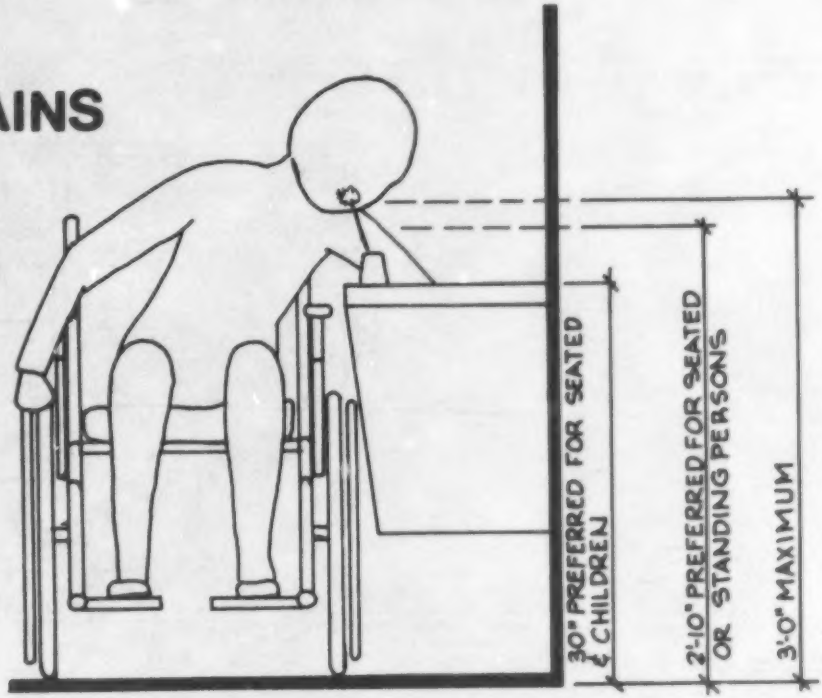
# WATER FOUNTAINS and TOILET ROOMS

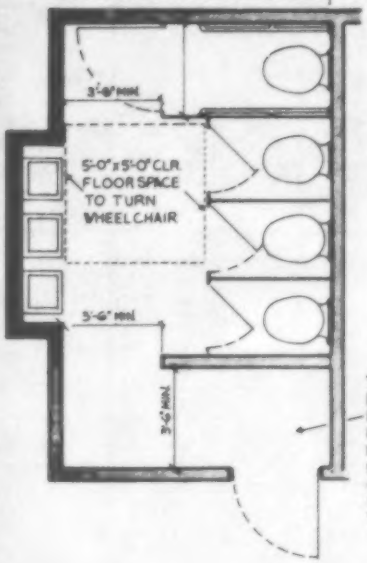



*The following information was extracted from the Illustrated Handbook of the Handicapped Section of the North Carolina Building Code.*

# TOILET ROOM PLANS

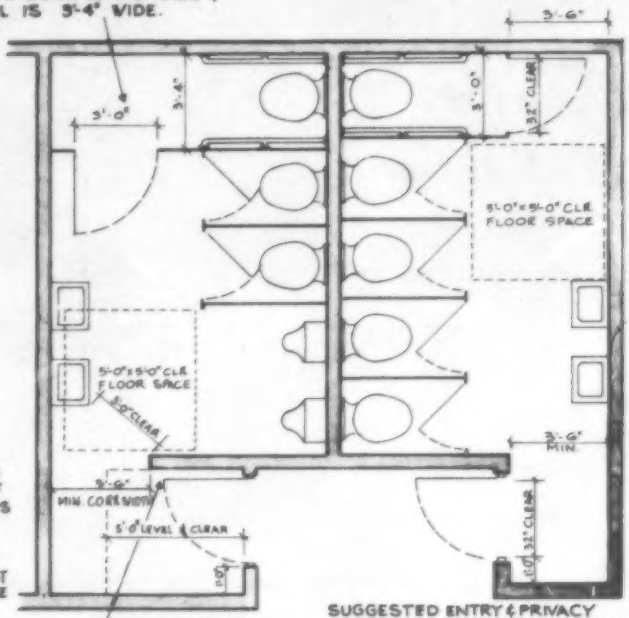
DUE TO ADDITIONAL LENGTH OF HANDICAPPED TOILET STALLS IT IS SUGGESTED THEY BE LOCATED AT END OF TOILET ROOMS THUS

5'-6" WITH FLOOR MOUNTED W.C.
5'-6" WITH WALL MOUNTED W.C.




TOILET ROOM DOOR MUST SWING OUT IF PRIVACY SCREEN IS USED AS SHOWN UNLESS SPACE BETWEEN DOOR & SCREEN IS AT LEAST 5'-0" IN ACCORDANCE WITH 11x4.3

STALLS MAY OCCUPY END OF ROOM & BE ENTERED FROM THE SIDE IF DOOR IS 3'-0" WIDE & STALL IS 5'-4" WIDE.




OPEN DOOR MUST NOT OVERLAP 3'-6" MIN. CLEAR CORRIDOR WIDTH.

SUGGESTED ENTRY & PRIVACY SCREEN ARRANGEMENT TO PREVENT DOOR SWINGING OUT INTO THE CORRIDOR. DOORS MAY SWING IN OR OUT.



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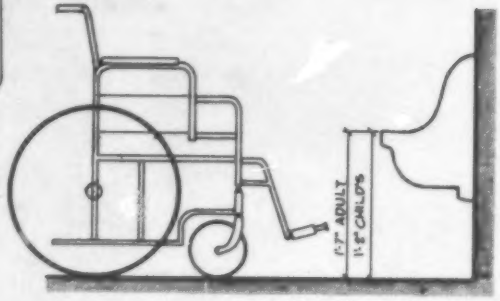
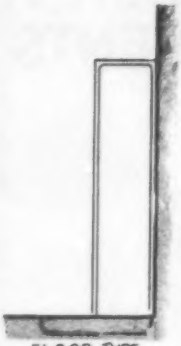
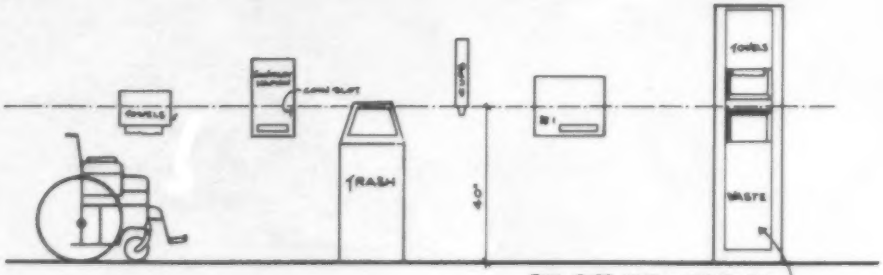
## URINALS




WALL HUNG URINAL



FLOOR TYPE

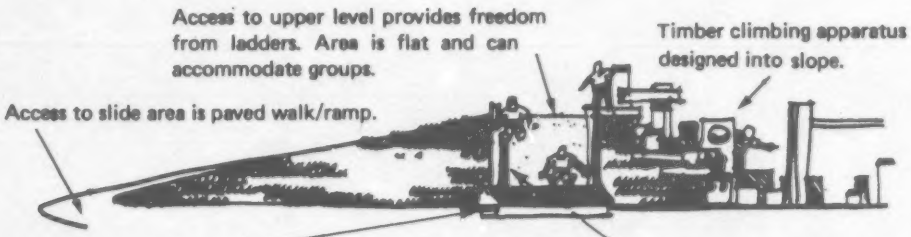



THIS TYPE NOT ACCEPTABLE UNLESS SEPARATE TOWEL DISPENSER IS ALSO INSTALLED AT 40"

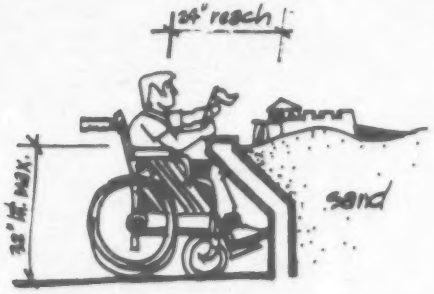
## TOILET ROOM ACCESSORIES

# PLAYGROUND COMPONENTS

## 1 SLIDES AND CLIMBING AREAS

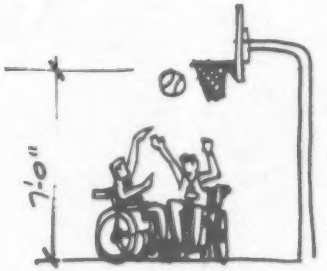

Access to upper level provides freedom from ladders. Area is flat and can accommodate groups.
Timber climbing apparatus designed into slope.
Access to slide area is paved walk/ramp.
Area at base of slide is free-draining and resilient.
Slide width allows use by more than one child at a time.

## 2 ELEVATED SAND-TABLES




Elevated area containing sand or water provides access for those in wheelchairs. Flat area is useful for toy cars, crafts, etc.

## 3 BASKETBALL HOOPS

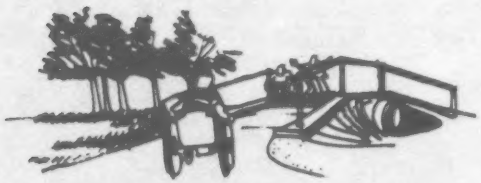



Basketball hoops lowered to 7'-0" from standard 10'-0" ht. allow those in wheelchairs and young children to enjoy the game.

*The following sketches were extracted from: Barrier Free Site Design, by the A.S.L.A. Foundation and the H.U.D. Office of Policy Development and Research.*

Provide ramp area at 10% max. & 3' wide. Handrails are helpful for those on foot.

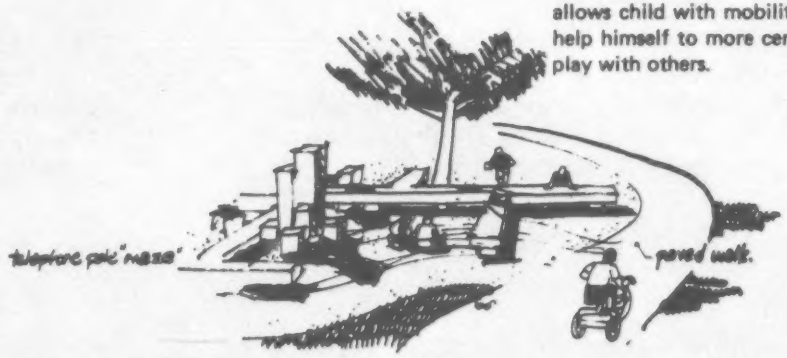
4" curb at edge is helpful for wheelchairs.



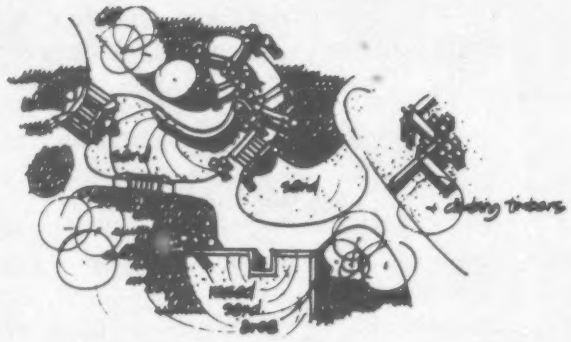
Paved walk allows access to all areas to enable play with other children.

## 4 RAMPED BRIDGE

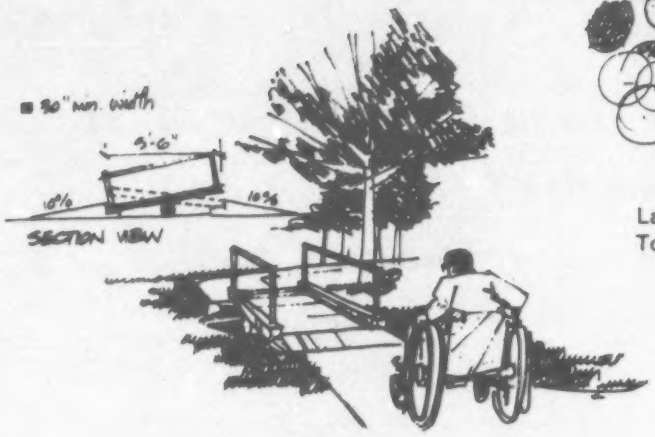
Extending timbers to near walkway allows child with mobility problem to help himself to more central parts to play with others.




## 6 CLIMBING TIMBERS



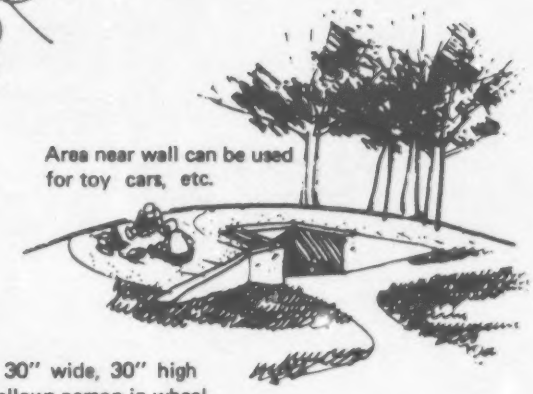
Layout Recreation Facilities
To Allow Continuous Circulation




Rocking bridge gives sensation of verticle movement to person in wheelchair. Provide rubber cushions to end edges to minimize impact when end drops and to protect other children's hands if playing at end area.

## 5 ROCKING BRIDGE

Area near wall can be used for toy cars, etc.



Area 36" deep, 30" wide, 30" high raised sand area allows person in wheelchair to enjoy use of sand without removal from chair.

## 7 RAISED SAND AREA

## Endorsements

The following organizations have endorsed, reviewed and participated in the preparation of this contest document.

New York State Council of Landscape Architects
New York Chapter of the American Institute of Architects
National Institute for Architectural Education

## National Research

The U.S. Department of Housing and Urban Development, Office of Policy Development and Research furnished the Department of City Planning a travel and research grant. The research yielded many ideas contained in the program and furnished the seminar material.

## Funding

The Eastern Paralyzed Veteran's Association has contributed toward the costs of this competition.

## Student Competition

The Eastern Paralyzed Veteran's Association is financing the costs of the architectural and design student competition. The National Institute for Architectural Education and the following schools will participate:

City College, School of Architecture
Columbia University, School of Architecture
Cooper Union, School of Architecture
New York Institute of Technology
Parsons School of Design
Pratt Institute, School of Architecture

## A.I.A. Committee on Architectural Design Competition

The American Institute of Architects' Committee on Architectural Design Competitions has neither approved or dispproved this program due to the suspension of the A.I.A. standard requiring approval of competition programs.

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# *A Playground for all Children*

## DESIGN COMPETITION PROGRAM

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